

PROCESSOR®

Products, News & Information Data Centers Can Trust. Since 1979

Keeping Data Centers Safe

Sensatronics Offers Tools To Keep Water & Heat At Bay

by David Garrett

SERVERS LIKE WATER even less than cats do, and they're none too fond of heat, either. That's where Sensatronics comes in. This New Hampshire-based firm makes tools that monitor your data center for temperature and moisture in order to protect vital investments too expensive to replace.

"Our solution is a low-cost way to have an insurance policy," says Curt Stanisewski, marketing manager for Sensatronics. "The principal benefit is being able to understand exactly what's going on in regards to the heating and cooling cycles of your data center."

For instance, the EM1 Environmental Monitor can keep an eye on a total of four zones in your data center, searching for heat, liquids, or excessive moisture in the air. It can also tell if a door is open or closed, including a door on a rack.

The EM1 lets IT admins and data center managers choose from a set of probes they can place at key points around the data center—for instance, in a horseshoe pattern around the back of air-conditioning units to detect water spills. The probes come in several types, including temperature/humidity probes that can be placed up to 300 feet from the sensor's main unit.

In lieu of a temperature/humidity probe, users can choose a more basic tempera-

size you choose. Further options include a door sensor (which can also be used on racks to tell when they're open) and a heavy-duty temperature probe meant for grueling surroundings, such as refrigerators and other applications beyond the average data center's needs.

Keeping Heat At Bay

The Model E IT Temperature Monitor is a simpler unit that measures a data center's temperature, from -40 to 140 degrees Fahrenheit.

Sensatronics recommends the unit as an adjunct or backup monitor, and like its big brother, the EM1, it boasts such advanced features as its own built-in Web server and Data Warehouse Server for storing data for nearly a day or bundling and sending it to any IP the IT admin selects. Both also boast support for Ethernet, SNMP, and XML.

Last in Sensatronics' line of heat monitors is the Model F IT Temperature Monitor, a small unit designed to attach to

Go to Page 13



ture probe that can sit as far as 1,000 feet away from the monitor but does not track humidity. A wetness probe will sense even one drop of water in a zone whose

Does Your SME Have A Remote Access Strategy?

Insiders Can Be The Weakest Security Link

by Chris A. MacKinnon

WHO WANTS TO WORK at the office anymore? Today's business environment is progressively shifting from traditional onsite operations to a more remote setup. But as convenient as this is, there are negative trade-offs to accessing the enterprise remotely, especially if a thorough remote access strategy is lacking. According to Gartner analyst Eric Paulak, many companies do have a remote access strategy, but few of those companies really have the right one.

A Weak Strategy

According to Paul A. Henry, vice president of technology evangelism at Secure

Computing (www.securecomputing.com), not enough emphasis is placed on the data that the remote user stores locally or that the

Go to Page 13

Prestrategy Preliminaries

Paul A. Henry, vice president of technology evangelism at Secure Computing (www.securecomputing.com), says failing to address endpoint security is the industry's biggest issue in remote connectivity. Henry says before connectivity is permitted, it must be verified that the enterprise security policy extends to the remote user through the use of endpoint validation.

He says the following preliminaries must be considered:

- Antivirus is operational and running current signatures
- OS and primary applications are patched to current levels
- Firewall is operational and is configured pursuant to the enterprise policy

In This ISSUE

COVER FOCUS

Companies To Watch

We profile five companies we think are worthy of your data center's attention.

Keeping Data Centers Safe.....	1
Open Source Systems.....	9
Invisible Defrag Is Key.....	10
All Things To Many SMEs.....	11
Verari Systems	12

TECH & TRENDS

Enterprise Remote Access Strategy | 1

Today's business environment is progressively shifting from traditional onsite operations to a more remote setup. But as convenient as this is, there are negative trade-offs to accessing the enterprise remotely.

Is Fiber Getting Lost In The Shuffle? | 28

The cabling market is especially ripe for competition as the ratification of the 10Gb copper cabling standard is being met with fiber cabling costs trending downward.

Keeping Up With Security | 29

Security vendors have tried to roll as many functions as possible into one appliance or package. The all-in-one appliance introduces its own challenges, though.

Printing & Scanning Strategies | 30

There is no reason to over-buy printers or scanners. But having too few units stifles productivity.

NEW PRODUCTS

AdventNet QIM 4	16
NTP Software QFS For NAS Storage Firewall 3.2	17
Overland Storage ULTAMUS RAID 5200	18
GizMac 25U XRackPro2	20
Breeze Hill & UltraRAD Backup Appliance	20

Product Releases | 16

■ **Aperture Technologies** launched Vista 500, a data center infrastructure resource-management system. ■ **Check Point** released SecureClient Mobile, which gives Windows Mobile device users access to enterprise email and business applications. ■ **Juniper Networks** launched Unified Access Control 2.0 for managing access to business assets from network endpoints. ■ **Kano** released NetCOR, a high-performance network-attached RAID appliance. ■ **Opsware** announced Opsware Virtualization Director to manage physical and virtual servers. ■ **Rackable Systems** introduced the RapidScaleT SA3100 cluster file system storage appliance. ■ **Secure Computing** introduced Webwasher 6.0, which protects IT systems from malware. ■ **Softek** announced Transparent Data Migration Facility z/OS 4.1, which includes tools for data migration and data replication.

EACH WEEK

Upcoming IT Events	3	Opinions	24, 25
MarketPlace News	3	What's Happening.....	31
MarketWatch.....	4	Processor.com	31
Product Releases	16		

The Processor.com home page is updated each week with new articles and hardware news to help you keep current. Visit www.processor.com today.

Subscribe Today / Address Change Form

PLEASE PRINT

Phone: () _____ Fax: () _____

Contact Name: _____

Company Name: _____

Address: _____

City: _____ State: _____ Postal Code: _____

Country: _____

Email: _____ Web Address: _____

**1. What is the size of your company
(how many employees)?**

- Less than 10
- 10 - 99
- 100 - 199
- 200 - 499
- 500 - 999
- 1,000+

**3. What is your annual computer hardware/
software purchasing budget?**

- \$0 - \$9,999
- \$10,000 - \$24,999
- \$25,000 - \$49,999
- \$50,000 - \$99,999
- \$100,000 - \$249,999
- \$250,000 - \$499,999
- \$500,000 - \$999,000
- \$1,000,000+

**2. How often do you purchase computer
hardware/software?**

- Weekly
- Bi-weekly
- Monthly
- Quarterly
- Annually
- No Involvement

For address change, fill out form below with new information and mail or fax.

PROCESSOR

© Copyright 2006 Sandhills Publishing Company.
All rights reserved.

Subscriptions: (800) 819-9014
Subscriptions Local: (402) 479-2170
Subscriptions Fax: (402) 479-2123
Mail Form To:
P.O. Box 85518, Lincoln, NE 68501-5518
Overnight Delivery:
120 West Harvest Drive, Lincoln, NE 68521

www.processor.com

Advertisers Index

COMPANY	PAGE	COMPANY	PAGE	COMPANY	PAGE	COMPANY	PAGE
CROSSTEC CORPORATION	6	KDS	26	RACKMOUNT SOLUTIONS	32		
360 TECHNOLOGIES	24	CYBER SWITCHING	9	KOUTECH SYSTEMS INC.	16	RECORTEC	14
ABACUS SOLUTIONS LLC	26	DATA NETWORKS INTERNATIONAL	26	L & L SYSTEMS	26	RECURRENT TECHNOLOGIES	26
AIS	21	DATA RELIANCE CORPORATION	30	LINCO COMPUTER SALES & SERVICE	26	RECYCLE YOUR MEDIA	8
ALTIRIS	6	DATAMEDIA SOURCE	26	MARX SOFTWARE SECURITY	6	REGENT SALES INC.	30
AMERICAN PROIMAGE	14	DIGILANT	14	MEDIA MASTR MAGNETICS INC.	26	RELIABLE RESOURCES INC.	8
APHEL TECHNOLOGIES	10	DIGILANT	24	MEDIA RECOVERY	17	ROSE ELECTRONICS	14
ARBOR SOLUTIONS	14	DIGITAL BROTHERS GROUP	30	MELLANOX TECHNOLOGIES INC.	18	SENSORY NETWORKS INC.	18
ARC COMPONENTS	26	DMD SYSTEMS RECOVERY	8	MICRO MEMORY BANK	23	SERVER TECHNOLOGY	9
ARECA	14	DRIVE SOLUTIONS INC	26	NETMASS	8	SERVER TECHNOLOGY	10
ASA COMPUTERS	5	ELI SYSTEMS INC	17	NEXSAN TECHNOLOGIES	13	SERVERS DIRECT	22
ATLAS SALES AND RENTALS	8	EQUIPMENT MANAGEMENT INC.	20	NLE	30	SEWELL DIRECT	11
AVTECH SOFTWARE INC.	8	EXCEL MERIDIAN DATA	14	NORTHWEST PERFORMANCE SOFTWARE	19	SEWELL DIRECT	14
AVTECH SOFTWARE INC.	12	GLOBAL PRINTER SERVICES	30	PACE / BUTLER CORP	26	SMS ASSEMBLY	26
AVTECH SOFTWARE INC.	15	HERGO ERGONOMIC SUPPORT SYS.	7	PACIFIC TRADING & RECYCLING	26	STORAGECRAFT TECHNOLOGY	6
B L TRADING INC	23	HERGO ERGONOMIC SUPPORT SYS.	10	PEGASUS COMPUTER MARKETING	8	TEST-UM/JDSU	8
BAYTECH	9	HERGO ERGONOMIC SUPPORT SYS.	11	PEGASUS COMPUTER MARKETING	26	TEST-UM/JDSU	25
BAYTECH	10	IT TRADING	26	POWERFILE	14	TOTALLYRACKS	11
BSP INTERNATIONAL	6	I-TECH CO	11	POWERFILE	19	TRIPWIRE	6
CANDELA TECHNOLOGIES	11	INFORMATION SUPPORT CONCEPTS	10	PREMIER SOLUTIONS CO.	29	VECMAR COMPUTER SOLUTIONS	20
COMPUREX SYSTEMS	26	INTERNATIONAL SYSTEMS MGT	26	PROSOURCE DATA CENTER CLEANING	8	VIBRANT TECHNOLOGIES INC.	30
COMPUTER CONNECTION	20	ISTAR USA	29	PULIZZI ENGINEERING INC.	6	WR CONSULTANT ASSOCIATES	23
COMPUVEST	23	ISTOR NETWORKS INC.	28	PYRAMID COMPUTERS USA	29	ZEROWAIT	17

Upcoming IT Events

- DECEMBER -

Search Engine Strategies 2006

December 4-7
Chicago, Ill.
www.jupiterevents.com

Portland ITC 2006

December 6-7
Portland, Ore.
www.goitec.com

ITC East

December 12-13
Harrisburg, Pa.
www.govresources.com

- JANUARY -

Storage Visions 2007 Conference

January 6-7
Las Vegas, Nev.
www.storagevisions.com

WCA International Symposium & Business Expo

January 16-19
San Jose, Calif.
www.wcai.com

- FEBRUARY -

Gartner Wireless & Mobile Summit

February 5-7
Dallas, Texas
www.gartner.com/2_events/conferences/ra10.jsp

RSA Conference

February 5-9
San Francisco, Calif.
www.rsaconference.com/2007/US

SCALE 5x - 2007 Southern California Linux Expo

February 10-11
Los Angeles, Calif.
www.socallinuxexpo.org

- MARCH -

VoiceCon

March 5-8
Orlando, Fla.
www.voicecon.com

Gartner Business Intelligence Summit

March 12-14
Chicago, Ill.
www.gartner.com/2_events/conferences/bi5.jsp

TelecomNEXT

March 18-21
Las Vegas, Nev.
www.telecom-next.com

Gartner Outsourcing Summit

March 19-21
Dallas, Texas
www.gartner.com/2_events/conferences/std10.jsp

FOSE

March 20-22
Washington, D.C.
www.fose.com

Advertising Sales: Susan Miller / Brant Washburn
Julie Lausterer / David Bartholomai
Rob Downey / Blake Johnston / Joy Caldwell

Editorial Staff: Ronald D. Kobler / Corey Russman
Michael Dempsey / Sheila Allen / Joy Martin
Rod Scher / Christopher Trumble / Calvin Clinchard
Katie Sommer / Michael Sweet / Katie Dolan
Raejean Brooks / Sally Curran / Nate Hoppe
Trista Kunce / Linné Ourada / Vince Cogley
Ashley Finter / Tara Simmons / Leah Houchin
Patrick Kean / Holly Zach / Barbara Ball / Marty Sems
Kylene Dickey / Josh Gulick / Andrew Leibman
Jennifer Johnson / Nathan Lake / Blaine Flamig

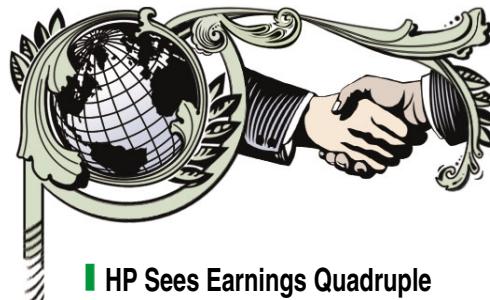
Art & Design: Lesa Call / Fred Schneider
Carrie Benes / Ginger Falldorf / Sonja Warner
Aaron Weston / Aaron Clark / Lori Garris
Jason Codr / Andria Cogley / Erin Rodriguez
Lindsay Anker

Web Staff: Dorene Krausnick / Laura Curry
Kristen Miller / Jessie Danekas

Subscriptions (800) 819-9014 (800) 247-4880
(402) 479-2170 (402) 479-2141
FAX: (402) 479-2120

Editorial Staff
131 W. Grand Drive • Lincoln, NE 68521
editor@processor.com
FAX: (402) 479-2104

MarketPlace NEWS



HP Sees Earnings Quadruple

HP MORE THAN QUADRUPLED its quarterly net profit over the same quarter a year ago. The company reports a Q4 net income of \$1.7 billion, or 60 cents a share. That number is up from \$416 million, or 14 cents a share, a year ago. Revenue is also up 7% to \$24.6 billion. HP also reclaimed the lead in worldwide personal computer shipments from Dell. It's the first time HP has topped the list since 2003.

CA Sues Ex-chief

FORMER CA CEO SANJAY KUMAR, who earlier this month was sentenced to 12 years in federal prison for his connection in an accounting fraud at CA, has a new legal issue. CA has filed a lawsuit against Kumar asking for repayment of the nearly \$15 million the company paid for Kumar's legal defense. A judge has granted CA an order of attachment, essentially allowing the company to lay claim against Kumar's home, vehicles, yacht, and a debt owed to him by CA Founder Charles Wang. The order of attachment ensures Kumar, if he loses the lawsuit, will be able to pay.

Tech Industry Demands More H-1Bs

COMPETE AMERICA, a tech industry lobby group, has sent a letter to members of Congress encouraging them to consider legislation to raise the number of H-1B visas available to skilled workers from outside the United States. The Senate currently is considering a bill to raise the H-1B visa cap from the current level of 85,000 to 115,000. But no vote has been scheduled. Compete America, which is backed by companies such as Microsoft, Intel, and HP, says if the H-1B cap isn't raised, there's a greater risk for American companies to turn to outsourcing to fill jobs.

Spyware Makers Should Face Stiffer Penalties

FEDERAL TRADE COMMISSION Commissioner Jon Leibowitz asked Congress to give the FTC power to fine spyware distributors. Currently, the FTC can take spyware purveyors to court and make them give up profits made from distributing the programs. However, Leibowitz says that does little to deter spyware makers and that the possibility of facing civil penalties could prove more beneficial. In the CAN-SPAM Act of 2003, Congress made it possible for the FTC to fine spammers, giving the FTC's antispam efforts "real teeth," Leibowitz says; he says the spyware law should be modeled after that.

Microsoft Forms Interoperability Group

AT MICROSOFT'S IT FORUM in Barcelona, the software giant announced it is forming a group of companies with the purpose of promoting software interoperability with Microsoft's systems. So far, 25 hardware and software vendors have joined. The conglomeration is called the Interop Vendor Alliance, and members include such notables as Novell, CA, Sun Microsystems, and AMD. Big-name companies who declined joining include HP, IBM, Red Hat, Oracle, and Google, although Microsoft says it is in discussions with some who are still deciding whether to join. The sectors the member companies and Microsoft will target for improving software interoperability include data access and integration, systems management, and virtualization, among others.

Pirated Vista Useless

AMID EARLY REPORTS of pirated copies of the new Office 2007 and Microsoft Vista operating system already circulating the Internet, Microsoft told users to be leery of using them. The pirated copies come with a product key for users to activate the product and an "activation crack" program that bypasses the check to see if the copy of Vista is legitimate. Microsoft says the unauthorized copies rely on the use of prerelease-to-manufacturing activation keys that will be blocked using Microsoft's Software Protection Platform. "Consequently, those downloads will be of limited value," the company said in a statement.

Europe Not Planning For Vista

A FORRESTER REPORT says the majority of European businesses surveyed do not plan to upgrade their operating systems to Microsoft's Windows Vista. Of the 302 IT executives polled, only 6% say they will upgrade to Vista within the first six months after its release, while 18% plan to deploy Vista within a year of its launch. Similarly, 20% say they will delay deploying Vista for up to two years. Notably, of the firms that use Windows-based systems, 35% of the PCs are running Win2000 or older, according to Forrester. The study also looked at server use in the companies and found 55% use HP servers, 32% use IBM, and 26% use Dell.

Top Threat Targets

UNLIKE ITS PAST state-of-the-Internet reports that detail the top vulnerabilities, the SANS Institute this year released a study listing the most common targets for attacks. Besides the commonly cited targets, such as Microsoft Windows, certain Web apps, and Internet Explorer, the Top 20 list included newer technologies that are being targeted more often, such as VoIP. Researchers also noticed a significant increase in threats to Microsoft's Office suite. Zero-day attacks have been on the rise, and this year's report shows they have become much more popular of late. Their popularity is part of the growing trend of hackers aiming smaller-scale attacks at more specific targets.

Dell Announces Accounting Inquiry

DELL RECENTLY ANNOUNCED that a formal investigation by the Securities and Exchange Commission had begun to look into the company's accounting practices. The investigation, which began as an inquiry in August, has prompted the company to delay releasing its Q3 financial results until the end of this month. According to Dell, activity surrounding the investigation, including

answering government queries, conducting internal queries, and compiling financial information, caused the delay. Although on the day of the announcement Dell shares closed at \$25.75, which shows an increase of 35.9% from its 52-week low of \$19.85, during after-hours trading following the announcement, shares fell 2.7%.

Study On Virtualization Benchmarks

A GROUP IS BEING FORMED by the SPEC (Standard Performance Evaluation Corp.) to discuss the need for virtualization benchmarks. If they decide that benchmarks are needed, the group will also work toward setting them. The process will take place over an estimated three-month-long process. Members of the groups will include representatives from companies such as VMware, AMD, Intel, and Fujitsu Siemens Computers, as well as other vendors. SPEC also says it would like to include end users in the process. SPEC has previously set standards for software, high-performance computing systems, and servers.

Dunn Enters Plea Of Not Guilty

FORMER HP CHAIRMAN Patricia Dunn recently appeared before the Santa Clara County Superior Court in San Jose, Calif. She waived her right to a preliminary hearing within 10 days and pleaded not guilty to the four felony charges she is facing. Dunn was represented by Somnath Raj Chatterjee, a partner at the San Francisco law firm Morrison & Foerster LLP. Dunn is accused of being a part of an investigation to discover the names of board members who may have leaked sensitive information to the media. HP allegedly hired private investigators who used deceptive tactics to retrieve phone records of the parties in question.

Dell Opens Another Support Center In India

ADDING TO ITS EXISTING Indian customer support facilities in Bangalore, Chandigarh, and Hyderabad, Dell plans to open up a fourth center in Gurgaon, India. Dell, the world's largest computer maker, already has a temporary site running in Gurgaon that is offering support to U.S. and European customers. The new permanent center will also focus on providing customer support, and the company expects to hire 1,000 employees to staff it by the end of the year. In March, Dell said it has plans over the next three years to double its employees in India to roughly 20,000, and the majority of those will be filling customer support positions.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	Nov. 13	Nov. 17	% change from previous week
Avaya	AV	\$11.41	\$13.17	\$13.01	▼ 1.21%
BEA Systems	BEAS	\$9.25	\$15.24	\$13.12	▼ 13.91%
Computer Associates	CA	\$28.43	\$23.31	\$22.45	▼ 3.69%
Cisco Systems	CSCO	\$17.27	\$26.68	\$26.93	▲ 0.94%
Dell	DELL	\$29.81	\$25.49	\$24.86	▼ 2.47%
Electronic Data Systems	EDS	\$23.70	\$27	\$27.24	▲ 0.89%
Google	GOOG	\$392.80	\$481.03	\$498.79	▲ 3.69%
HP	HPQ	\$28.12	\$40.22	\$39.77	▼ 1.12%
IBM	IBM	\$85.53	\$92.07	\$93.81	▲ 1.89%
Intel	INTC	\$25.08	\$21	\$22.10	▲ 5.24%
McAfee	MFE	\$29.48	\$29.43	\$28.41	▼ 3.47%
Microsoft	MSFT	\$27.50	\$29.35	\$29.40	▲ 0.17%
Oracle	ORCL	\$12.67	\$19.18	\$19.46	▲ 1.46%
Red Hat Software	RHAT	\$22.99	\$17.53	\$16.67	▼ 4.91%
Sun Microsystems	SUNW	\$3.68	\$5.38	\$5.47	▲ 1.67%
Symantec	SYMC	\$19.15	\$20.53	\$20.66	▲ 0.63%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Preventing Mobile Maliciousness

Taking A Look At Security Solutions For Wireless Mobile Devices

by Sandra Kay Miller

• • •

WIRELESS SECURITY: It has come to be so much more than just protecting Wi-Fi connections. Cellular and Bluetooth are also wireless, and with the explosive growth of smartphones and Web-enabled PDAs, which often combine all three, there's a new target on the block for wireless threats.

According to Gartner Dataquest, wireless mobile device growth has been doubling every year since 2004, and this growth should continue through the end of the decade. By 2009, one in four mobile handsets will support some type of operating system and connect to the Internet.

One of the factors driving the adoption of mobile devices is the climbing speed at which data is wirelessly delivered. At the low end, GSM networks deliver 14Kbps, while the newer technologies such as UMTS and EVDO are in the 220 to 500Kbps range, and HADPA (high-speed download packet access), an emerging 3G

send unauthorized calls and messages, and theft of private information stored on the device or accessible through the network.

The first salvo of malicious code specifically designed to exploit wireless devices appeared in 2004 with the proof-of-concept Cabir code that proliferated via open Bluetooth connections. Once the code became public, variants quickly emerged. In two years, malicious mobile code has materialized targeting features specific to wireless devices such as MMS/SMS (Multimedia Messaging Service/Short Messaging Service) messaging and auto-dialing, as well as existing vulnerabilities associated with Wi-Fi and the all-time favorite for hackers and malcode writers—social engineering.

While spam is a significant nuisance on traditional networks, it poses an even greater risk for the wireless customer. Because most mobile networks charge per message or by the amount of data passed, wireless spam (also called spim) can add up into dollars. It would be like having to pay the postage on each piece of junk mail you receive. Spam is also a popular vector for phishing scams and directing users to sites that install spyware.

Industry Challenges

Due to the constraints of memory, storage, and bandwidth, coupled with numerous features unique to mobile computing environments, security vendors could not simply port antivirus, antispam/spyware, and personal firewall applications to a mobile platform.

But that hasn't hampered major antivirus vendors from developing products for wireless mobile devices. Long-time security researchers and analysts, including Mikko Hypponen at F-Secure, Graham Cluley at Sophos (www.sophos.com), and John Pescatore at Gartner, all predict the next wave of malicious code to focus on the wireless realm.

Even with commercial mobile security products, cutting-edge wireless mobile devices are often user-provisioned, reaching into enterprise networks through browser-based interfaces under the radar of IT.

Despite a growing number of wireless-specific threats, to date there hasn't been a widespread wireless catastrophe attributed to mobile malware, unlike global wired networks that have been brought to a grinding

halt with viruses and worms such as Melissa and Slammer. But that doesn't mean it can't happen.

Recognizing the possibility, companies integrating mobile wireless devices into their infrastructure are hedging their bets by using security products specifically engineered to protect mobile devices, such as those available from Trend Micro, Symantec, F-Secure, and McAfee.

Targeted OS

Microsoft (www.microsoft.com) might lead the pack when it comes to PCs, but in the wireless world Symbian rules as the operating system of choice for mobile device makers. With the lion's share of the market—nearly 80%, according to Gartner—it comes as little surprise to see the first round of commercial mobile security products aimed at devices running on Symbian. Along that same vein, the majority of identified mobile malware also targets Symbian devices.

Symantec offers two versions of its Mobile Security 4.0—for either the Symbian 60 or 80 platforms. Symantec also offers AntiVirus for Handhelds (\$39.95), which supports phones and handhelds running Microsoft Windows Mobile 5 operating systems, which Gartner lists as barely

inbound and outbound LAN/WAN and Bluetooth communications, blocking suspicious attempted connections.

Overhead

Normally, comprehensive security would present a significant overhead to the system, but mobile solutions need to operate within the confines of devices on which they reside. In addition to space, latency and updating require special considerations.

F-Secure's Mobile Anti-Virus requires only 850Kb of free space of internal memory and delivers automatic updates to mobile

SNAPSHOT

Trend Micro Mobile Security

\$34.95

Mobile antivirus protects wireless handhelds against viruses, worms, Trojans, and SMS spam; built-in firewall guards Wi-Fi-enabled devices against hackers, intrusions, and DoS attacks

www.Processor.com/TrendMicro18

devices via an HTTPS data connection or incrementally by SMS messages. The service can be provisioned directly to the device through an Internet connection.

McAfee VirusScan Mobile Enterprise Edition needs only 500Kb and is optimized for only a 200-millisecond latency during inline cleaning of worms, Trojans, viruses, and other threats. The software can be downloaded directly to the device from a corporate intranet or directly from McAfee's Web site.

Depending on the particular device, Symantec's Mobile Security product can use only 322Kb of disk space or a whopping 780Kb. The software can be easily installed either by synchronizing with a PC or over a wireless download directly to the device. Once installed, Symantec's LiveUpdate efficiently delivers both virus signature database information as well as software updates.

Users are going to have to cough up 3MB of storage and 2MB of memory to use Trend Micro's Mobile Security product. Similar to other mobile security products, Trend offers multiple methods for updating virus pattern files to the device (GPRS or synchronizing through a PC).

Security threats to mobile devices are still in their infancy; however, as wireless mobiles become more sophisticated and prolific, wireless data network speeds increase, and hackers become more sophisticated, the threat level against mobile devices will necessitate stronger security measures.

SNAPSHOT

McAfee VirusScan Mobile

\$29.99

Offers real-time protection against viruses, worms, dialers, Trojans, and battery-sapping malware for mobile devices such as smartphones and wireless-enabled PDAs

www.mcafee.com

14% of the total market at this time but estimates will reach 25% by 2009.

Although Symantec doesn't include these Mobile and Handheld products in its comprehensive enterprise security suite at this time, both products can be centrally managed through the management console included in the suite, making it an attractive option for existing customers.

Trend Micro and F-Secure also identify with the need for centralized management and provisioning. Through their Web-based consoles, administrators have the capacity to access all client devices and manage, update, and automate compliance to protect against multiple types of threats, as well as retrieve reports identifying device OS platform (they cover both Symbian and Windows), scan engine, and virus pattern versions.

Comprehensive Protection

Antivirus technology alone will not protect wireless mobiles from the current threatscape. Unprotected Wi-Fi and Bluetooth connections leave devices vulnerable to intrusion, and spam sent via email and messaging opens the door for phishing, spyware, worms, and dialers, in addition to viruses able to literally disable the device, rendering it useless either through sapping the battery or corrupting the device itself.

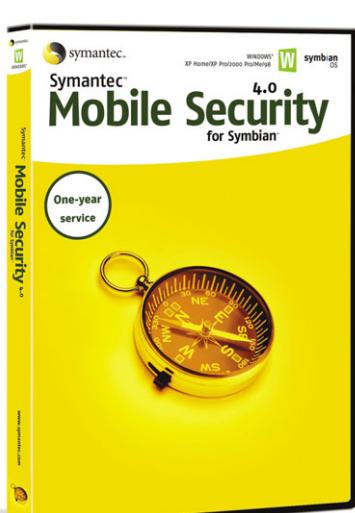
That's why mobile security products, such as those from Symantec and F-Secure, include firewall capabilities that monitor

Buying Tips

Here are some ideas of what to look for when choosing a mobile security product:

- Make sure the solution supports all the devices and mobile platforms used in your organization.
- For large deployments, look for products that can be integrated into your existing security infrastructure, such as antivirus, and that are capable of centralized management, updates, and reporting.
- Verify that the security product will not inhibit required business functions or impact device performance.

To see Processor Showcase advertisements for products in this category, look online at www.Processor.com and find the Wireless Security ads under Communications/Wireless.



SNAPSHOT

Symantec Mobile Security 4.0 for Symbian

\$44.95

Two-year service providing protection for Symbian series 60 and 80 smartphones from wireless threats through a built-in firewall and antivirus technology

www.Processor.com/Symbian



SNAPSHOT

F-Secure Mobile AntiVirus

\$34.95

12-month subscription to antivirus coverage for Symbian and Windows Mobile devices

www.Processor.com/F-Secure

protocol, promises more than 7Mbps. However, as with wired networks, an increase in speed also means an increase in infections and attacks.

Threat Landscape

Antti Vihavainen, vice president of mobile security at F-Secure, points out that the ability for hackers to compromise mobile devices is just as real as being able to maliciously intrude on a corporate WLAN.

Jay Heiser, a research vice president at Gartner, believes that as wireless devices become more complex, they will ultimately suffer similar security issues. Specific to wireless, Forrester Research predicts that attacks against mobile devices will focus on three major areas: disruption of networks through worms, financial theft through the use of hijacking the devices to



ASA Computers

Want your business to be more productive?

The ASA Servers powered by the Dual Core Xeon™ processor provide the quality and

dependability to keep up with your growing business.

Hardware systems For The Open source Community -since 1989

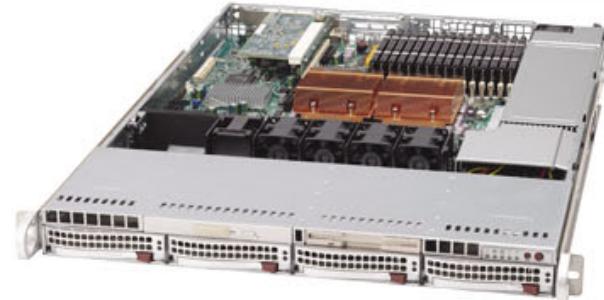
(Linux, FreeBSD, OpenBSD, Solaris, MS, etc.)

Product Feature

- Rack solid Quality rackmount system with excellent cooling.
- Custom OS including Linux, Solaris *BSD, MS Windows, Suse, Debian, etc.
- Hardware and software Raid storage.
- High density cluster nodes.
- SATA - SCSI - SAS - Fiber Raid.
- iSCSI and NAS storage appliances.
- Highend custom workstations.
- On-site warranty support for most of our products.

Dempsey/Woodcrest Server Starts at

\$2024



- 1U Dual Core 5030 CPUs.
- 4GB FBDIMM Memory.
- Supports upto 64GB FBDIMM.
- 120 GB hotswap hard drive.
- 2xIntegrated Dual 10/1000 LAN.

I Xeon Server Starts at

\$4015



- 5U Dual Xeon 2.8 Ghz 800 FSB.
- iSCSI or NAS Software options.
- 8x120 GB Sata Hard drives -Upto 18TB.
- 512 MB RAM
- Fail hard drive LED indicator.

Your Custom Appliance Solution



Let us know your needs,
we will get you a solution.

Value Server V210 Starts at

\$528



- 1U 14" Deep 260W.
- Celeron 2.4 Ghz CPU.
- 512MB PC3200 DDR ECC Unbuffered.
- Support upto 2GB DDR RAM.
- 80GB Hard Disk.
- 2x 10/100 Mbps LAN.

Technical Expertise

We have a highly qualified technical and engineering team consisting of Redhat, BSD, MCSE, CCNA, and CNE certified engineers. They are dedicated to address any issue you may have with our hardware products. Our sales engineers are expert in providing you solution that suits your needs while keeping your budget low..

Custom OEM Solution

- Custom chassis design as per your needs for your appliances.
- Custom logo printing.
- Facilitating in getting various certifications like FCC/UL/CE, etc.
- Custom install of your images.
- Drop ship on your behalf.

Dual Xeon 800FSB Storage Starts at

\$6644



- 8U Dual Xeon 2.8 Ghz 800FSB CPUs.
- 2TB of storage (36TB max).
- 1GB RAM
- NAS or iSCSI software options
- 2 x 10/100/1000 Gigabit LAN.

Why Do Business With ASA:

Since 1989, ASA has served customers like Cisco, Juniper, Caltech, Fermilab, and most Universities. We provide total custom solution with OS of your choice. Excellent pre-sales and post sales support. Reliable hardware at most competitive prices.

We provide approved EVAL server for 10 days

Please call or contact us for your next hardware purchase.

1-800-REAL-PCS



Business Productivitywww.Processor.com/Altiris51

AUGUST 11, 2006

Service & Asset Management Suite

Combines enterprise asset and service management disciplines into a single Web-based architecture, repository, and console helping unite disparate departments and processes.

Key Features & Benefits:

- Simplify implementation of out-of-box ITIL asset and service management processes
- Actively track IT asset location, configuration, deployed versions, relationships, and historical information
- Actively track software and hardware usage for reallocation and contract negotiation
- Support corporate Sarbanes-Oxley initiatives
- Proactively resolve incidents and problems to ensure asset and service availability
- Allow employees to resolve their own issues via self-help



588 West 400 South
Lindon, UT 84042
Phone: (888) 252-5551
Fax: (801) 226-8506

Securitywww.Processor.com/Marx2

NOVEMBER 10, 2006



CRYPTO-BOX: Protects software and online media distribution with the powerful AES / Rijndael encryption algorithm on board. Designed for Electronic Software Distribution (ESD), Pay-per-use license management, and online subscription services. Allows secure online activation, automated remote updates, and web access control.

Learn more at www.Processor.com/Marx2



2900 Chamblee Tucker Rd., Bldg. 9
Atlanta, GA 30341
Phone: (800) 627-9468
Fax: (770) 986-8891

Network & Systems Mgmt.www.Processor.com/Tripwire3

AUGUST 11, 2006



Tripwire Enterprise monitors and detects change across the IT service stack, providing an essential detective control for passing IT audits and enforcing change management.

- Close the loop on change management
- Demonstrate regulatory compliance
- Reduce downtime and unplanned work
- Improve security



326 SW Broadway, 3rd Floor
Portland, OR 97205
Phone: (800) 874-7947
Fax: (503) 276-7643

Storagewww.Processor.com/StorageCraft3

AUGUST 11, 2006

SHADOWPROTECT™

Complete System and Data Protection

StorageCraft ShadowProtect IT Edition

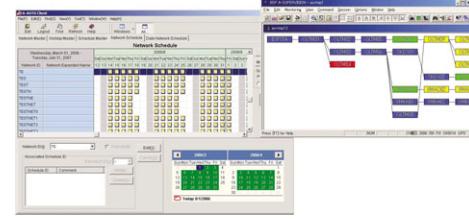
Provides IT Professionals a bootable Windows environment to create and restore compressed and encrypted backup images of both servers and PCs. Restore individual files or folders, update backup images, or complete bare metal recovery in minutes—without the need to install software.



180 West Election Road, Suite 230
Draper, UT 84020
Phone: (801) 545-4700
Fax: (801) 545-4705

Network & Systems Mgmt.www.Processor.com/BSP

AUGUST 11, 2006

**A-AUTO is the Advanced Automatic Job Scheduling & Monitoring System**

- Simplifies complex operations by managing application batch processing
- Support job execution on Unix, Linux, AS/400, Windows server, even z/OS.
- Automates application jobs (ERP, CRM, Database, etc.)
- Download our 30-day trial version at www.bspi.com



535 Fifth Ave. Suite 1001
New York, NY 10017
Phone: (212) 398-9501
Fax: (212) 398-9502

PROCESSOR® SHOWCASE**Attention Manufacturers:
Advertise Your Products In
Processor's Showcase Section!**

- Proven publication in business since 1979
- Color picture
- Detailed, editorial-style product description
- Internet exposure via our Processor Showcase feature
- Only \$176 an issue

**Create More Brand Awareness!
Call Us Today at (800) 247-4880.**

SECURITY

NOVEMBER 3, 2006

Greater Security Data Intelligence

Crosstec Activeworx Helps Examine Your Enterprise's Security Infrastructure

Activeworx SECURITY CENTER

CROSSTEC'S ACTIVEWORX Security Center is a feature-rich, user-friendly environment to investigate security event log files, perform event correlation, and analyze your enterprise's overall security infrastructure. Jeff Richards, general manager for Activeworx, says that, with the program, "you can actually see what is going on in real time and analyze problems quickly." The program's intuitive design is both easy to install and easy to use, offering you mission-critical security tools at an affordable price.

Activeworx Security Center provides a common view of all security events in your enterprise. Users can view, search, graph, diagram, report, and correlate security data. At the heart of Activeworx is the powerful Activeworx Event Framework, which can compile event data from nearly any device on your network, including your firewall, IDS, IPS, Syslog, SNMP, vulnerability assessment, antivirus program, routers, switches, VPN, Windows Event Logs, and more. Activeworx can integrate with existing Snort event security databases and help compile valuable information from Snort installations.

When a suspect event is detected in one device's log file, a Correlation Engine

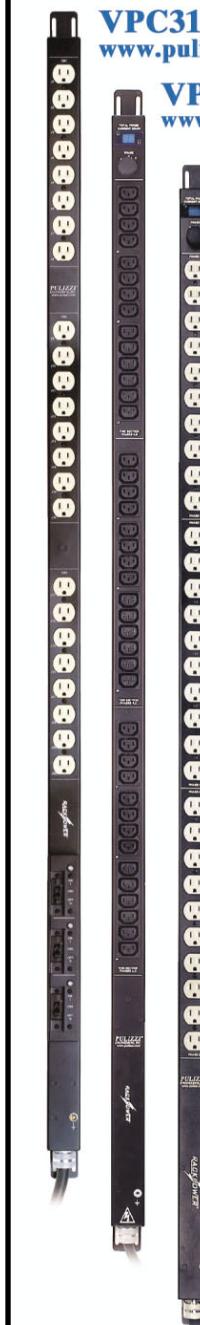
takes a predefined action, generally checking the security information from multiple devices on the system to make sure the event is a real threat. The Correlation Engine also can group common events together to provide more depth information.

Activeworx also covers you from a security compliance angle, providing an easy way to report on the overall security posture of your company and give an historical account on any incidents of interest. The program's powerful forensic features let an administrator drill down into the data to find precise details regarding an event. Hundreds of built-in predefined tasks help with collecting information needed to show compliance or help with an audit.

Crosstec Activeworx Security Center

Compiles event data from nearly any device on a network, providing a common view of all security events in your enterprise

(800) 675-0729

www.Processor.com/Activeworx**VPC3106**www.pulizzi.com/vpc**VPC2864-1**www.pulizzi.com/vpc**VPC2864-A1**www.pulizzi.com/vpc**Three Phase Power Distribution**

**Same Day Shipping
On In Stock Power Distribution Units**

(Orders placed by 12 PM Central)
www.pulizzi.com/stock

NEW High POWER!

- Three phase input - up to 72 amps single phase power!
- Current meter allows phase balancing/full loading
- Vertical strip requires no rack space - "0"U mounting!
- High power maximum density
- 120 volt and 208 volt configuration



ISO 9001:2000



**PULIZZI®
ENGINEERING, INC.
www.pulizzi.com
1-877-PULIZZI
(785-4994)**

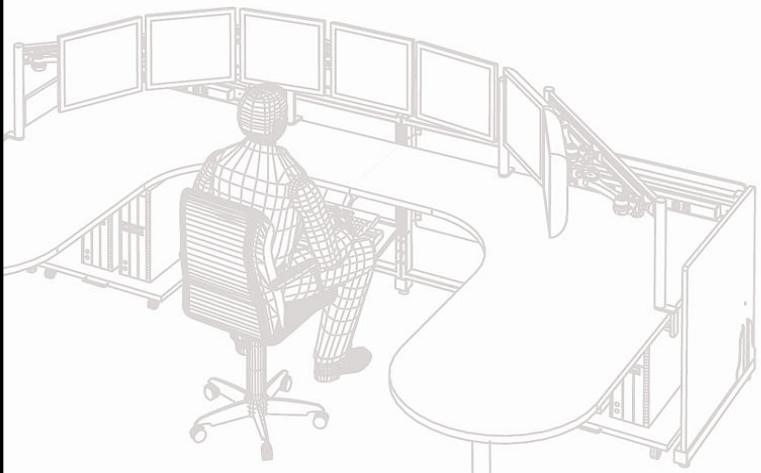
PRC0506

COMPUTER TECHNICAL FURNITURE



888.222.7270 | www.hergo.com

**#1 QUALITY SOURCE FOR
WORKSPACE SOLUTIONS**



An original equipment manufacturer since its inception in 1992, Hergo remains a trusted source for technical furniture, computer enclosures/cabinets, relay racks, LCD mounting solutions and command & control centers.

We are technology people who understand your computing workspace needs.

As part of our 100% customer satisfaction guarantee, Hergo offers free space design and consultation, including 3-D CAD drawings and simulated environment renderings to ensure maximized user space and productivity.

Hergo is an approved supplier to all branches of the U.S. Government.
GSA Contract # GS-29F-0133G

▼ RACKMOUNT ENCLOSURES / CABINETS



▼ WALLMOUNTS



▼ RELAY RACKS



▼ COMMAND AND CONTROL CENTERS



▼ OPEN RACKS | SERVER FARMS AND DATA CENTERS



▼ TRADING SOLUTIONS



▼ LCD ARMS & ASSEMBLIES



▼ PACs WORKSTATIONS



▼ TRAINING DESKS



▼ MOBILE CARTS



COMPUTER TECHNICAL FURNITURE

56-01 55th Avenue, Maspeth, NY 11378
T: 888.222.7270 | F: 888.410.0671

888.222.7270 | www.hergo.com

Get Cash For Your Data Tapes

Recycling Your Media Has Never Been So Safe, Sound & Simple

MOST ENTERPRISE DATA CENTERS are apprehensive about recycling data tapes due to security issues. Recycle Your Media has earned a reputation for being one of the

largest and most respected full-service data tape recycling companies worldwide.

RecycleYourMedia.com is the most viable solution for your end-of-life data

Think Green: Cash For Data Tapes



Data tapes we recycle: SDLT, 9940, 3590, LTO, AME AIT, and many others.

Data Center Services

www.Processor.com/Prosource1

AUGUST 4, 2006

Services

- Data Center Cleaning
- Environmental Audits
- Subfloor Encapsulation
- Post-Construction Site Prep
- Onsite Access Resurfacing
- Nationwide Service

Products

- Sticky Mats
- Portable Cooling
- HEPA Vacuums
- Test Instruments
- Room Air Cleaners
- Static Control Mats / Chemicals



National Coverage!

ProSource

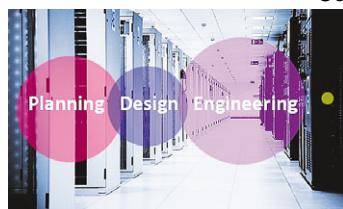
MISSION CRITICAL SERVICES

312 Old Wood Dr.
Columbia, SC 29212
Phone: (888) 247-0986
Fax: (866) 253 - 7596

Data Center Services

www.Processor.com/RelRes

OCTOBER 20, 2006



We offer **planning, design, engineering, construction management and commissioning** for data center facilities & IT infrastructure. We can help you gain a complete picture of how the capabilities of your facilities and network architecture may impact business goals. Visit Relres.com for a complete list of our services, past projects, as well as information on planning & budgeting data center projects.

reliable resources

6121 Baker Rd. STE 109
Phone: (612) 279-0411

Minnetonka, MN 55345
Fax: (612) 279-0410

Data Center Services

www.Processor.com/DMD2

SEPTEMBER 15, 2006



We Purchase

New, Used, Excess, Idle Computer and IT Equipment
We Offer
DOD Level Data Destruction - Outright Purchase - Ongoing Support - EPA-Compliant Recycling - Deinstallation - Security Services - Off-Lease Auditing - Packing
Call DMD Systems Recovery for a fast, friendly quote

 DMD SYSTEMS RECOVERY, INC.

1315 E. Gibson LN, Ste. E
Phone: (602) 307-0180

Phoenix, AZ 85034
Fax: (602) 307-0181

Repair

www.Processor.com/Pegasus

JANUARY 13, 2006

POS (Point-of-Sale) Barcoding / Scanners / Barcode Printers

Sales & Maintenance

- Quality Service
- Experienced Technicians
- Fast Return
- Servicing Major Brands

Symbol • Intermec • Zebra
Metrologic • Cisco Access Pts.

Call Us Today!




Pegasus Computer
Marketing, Inc.

4 Mustang Circle
Forney, TX 75126
Phone: (800) 856-2111
Fax: (972) 564-5027

Storage

www.Processor.com/NetMass

OCTOBER 13, 2006

Server Backup Made Easy. Next-generation online backup and recovery service for Windows, Unix, Linux, Mac, Novell and AS400 environments. Live Exchange and SQL Server backup. Continuous Data Protection of file systems and Exchange at the brick level. Seamless multi-site backup of disperse data with centralized management, monitoring and reporting. Agentless technology for instant deployment. AES encryption in flight and at rest. LAN-speed recovery. Bare-metal restore. Tier-1 data centers. Free 30-day trial now. White papers and case studies on our website.

"It was incredibly fast – an entire restore took all of five minutes."

Robert Walston, IT Manager, VAALCO Energy

NETMASS
The Safe Data Company

112 E. Louisiana, Suite C
McKinney, TX 75069
Phone: (800) 731-2737

Same Great Information, New Look



Our new, easier-to-read home page allows you to quickly find the information you need.

PROCESSOR.COM

Cabling

www.Processor.com/Test-Um3

AUGUST 4, 2006



Only
\$319.25

Test-Um Inc.
The Intelligent Test Solutions Company

808 Calle Plano
Phone: (805) 383-1500

JDSU
Camarillo, CA 93012

Fax: (805) 383-1595

Environmental Monitoring

www.Processor.com/AVTECH15

NOVEMBER 10, 2006

Order Online
For Just...
\$245



TempPageR provides real-time temperature monitoring, graphing and logging with alerts to individuals or groups. Web interface, supports 4 digital temperature sensors, connects via Ethernet, sends email, SMS & SNMP alerts, use w/wo host PC, rack mount option. Free support and satisfaction guarantee. Resellers welcome.

AVTECH
Software

221 Third Street
Newport, RI 02840
Phone: (401) 847-6700
Fax: (401) 847-6701

HVAC

www.Processor.com/Atlas2

NOVEMBER 17, 2006

Portable Air Conditioning

- Server Rooms
- Electronic Equipment
- Primary, Supplemental, or Emergency Cooling

Featuring:

- Rentals and Sales
- Installs in Minutes
- Locations Nationwide

MOVINCOOL
PREFERRED DISTRIBUTOR
MovinCool, SpotCool and Office Pro are registered trademarks of DENSO Corporation.

PO Box 988
Phone: (800) 972-6600

Atlas Sales & Rentals, Inc.
THE PORTABLE COOLING & HEATING SPECIALISTS

Newark, CA 94560
Fax: (510) 713-3311

tapes. Recycling your media is environmentally sound and economically sensible given that it can recoup IT costs.

When recycling your data tapes, you need to be assured that the data will be destroyed and rendered unreadable. We practice the most secure methods, complying with governmental privacy and storage laws. We are highly experienced in data eradication and will offer data destruction certificates and volume serial reports to ensure your sensitive data is irretrievable.

Matthew Bernard, IT network manager at John Wiley & Sons, says, "Although hesitant to release my used data tapes, I found Recycle Your Media's data tape recycling service to be secure, professional, and more than I expected."

Recycle Your Media works with Fortune 500 companies, banks, government

agencies, law firms, and hospitals, making us a reliable source for all your data tape recycling needs.

Why pay for tape shredding? Recycle Your Media can pay you to recycle your data tapes. Recycling data tapes is simple: Give us a call and we take care of the rest.

Recycle Your Media

We buy all types of tapes and recycle them using secure and environmentally sound methods

(877) 798-2737

www.Processor.com/Recycle

RecycleYourMedia
SECURE END OF LIFE DATA SOLUTIONS

Open Source Systems

From Large To Small Installations, OSS Provides Customizable Data Center Solutions

by Elizabeth Millard

WHEN OPEN SOURCE SYSTEMS got its start in 2001, the field wasn't quite booming the way it is now, just a handful of years later, but the company could see a change coming in the way that data centers were operating.

"People were getting tired of paying exorbitant licensing fees," says Jared Giles, OSS' vice president of marketing and product management. "Linux was gaining momentum, and it seemed that the opportunity was tremendous."

First created as Open Source Storage, the company provides high-end server and storage systems for data centers worldwide and tailors its offerings for centers of various sizes, from the smallest of the SMEs to large-scale installations that feature the most cutting-edge open-source systems available.

Key Advantages

A number of companies do data center design, management, installation, and hardware implementations, but OSS feels that it's unique thanks to several key advantages over competitors.

Most notably, the company has large-scale rapid deployment that doesn't depend on contract manufacturers or system integrators, according to CEO and Co-founder Eren Niazi.

"We design everything in-house," he says. "By controlling our own manufacturing facility instead of outsourcing, we have the ability to turn around hundreds of machines very quickly and meet customer needs more efficiently."

The company's automated production facility was costly to build, he notes, but OSS was willing to pony up the money for a manufacturing process that is more customer-focused and speedy, rather than one that depended on an intricate network of partners. As an added perk, OSS delivers

to have administration functions handled remotely by a smaller staff."

Even in Silicon Valley, the amount of traffic is driving the need for more remote management, he notes. The small highway that shuttles people in and out of the valley is becoming increasingly congested and has become a major pain for many data center managers in the area. Although an extra hour on the freeway might seem like a minor consideration, it's certainly a resource waste that doesn't need to happen, Niazi says.

Power Rangers

As many data center administrators and IT managers know, power has become a daunting issue as more hardware is put into a system, and facilities need to create a strategy that ensures a steady power supply.

This concern has driven OSS to design custom chassis that allow for better airflow within each system, dramatically decreasing the amount of power traditionally needed to

cool systems that are always on. OSS offers power processors from AMD (www.amd.com) and Intel (www.intel.com) and constantly ferrets out the most efficient motherboard, memory, and hard drive option for cost and performance.

The company's Gemini system is one of the first that runs AMD and Intel in the same system, and VMware (www.vmware.com) isn't needed to create two fully independent systems, Niazi notes.

"We're the first to offer this type of system," he says. "It was created so customers have maximum versatility. If they're

migrating from Intel or AMD, it allows them to have both systems in the same enclosure. Or if they have an application that runs better on Intel, for example, they can assign it to that part of the system."

The company also prides itself on extensive support and services. In addition to custom operating system installation and configuration, OSS offers budget-conscious recommendations, system architecture design, onsite installation of servers, and technical service.

If a company is just starting to expand its data center, OSS goes to great lengths to do what's necessary to integrate its systems into an existing infrastructure and is focused on scaling architecture in a way that increases performance but still stays within budget.

By drawing on open source, and therefore not limiting a data center to a specific operating system, OSS customers can have more flexibility, notes Giles. As open source evolves, the company will be able to develop more support, services, and systems that evolve as well.

"Over the last few years, we've created a number of advantages, thanks to putting an emphasis on open source," says Giles. "Our expertise is letting us utilize the powerful structure of open source within our hardware offerings." □



the completed systems to many data centers free of charge.

Another significant advantage is the company's remote management and administration line. From system standard IPMI (Intelligent Platform Management Interface) to a full line of Cyclades out-of-band management tools, OSS is intent on offering customers a better way to manage infrastructure.

"Remote management is really growing in demand," says Niazi. "Many customers have their main data center in Silicon Valley but might have another in India or Europe. It just makes better sense costwise

cool systems that are always on. OSS offers power processors from AMD (www.amd.com) and Intel (www.intel.com) and constantly ferrets out the most efficient motherboard, memory, and hard drive option for cost and performance.

The company's Gemini system is one of the first that runs AMD and Intel in the same system, and VMware (www.vmware.com) isn't needed to create two fully independent systems, Niazi notes.

"We're the first to offer this type of system," he says. "It was created so customers have maximum versatility. If they're

Open Source Systems

Location: Sunnyvale, Calif.

URL: www.opensourcesystems.com

Founded: 2001

Founders: Eren Niazi and Ivan Secoquian

Interesting Fact: OSS had one of the first large-scale installations of Opteron on a 64-bit operating system.

Power Distribution

www.Processor.com/CyberSwitching6

SEPTEMBER 22, 2006

Powering Up Your Network With the E Series



- 12A, 20A, or 30A rated
- True RMS current and voltage measurement
- 3 Digit Display Flashes when:
 - Current exceeds 80% of rating and/or
 - High or Low voltage condition exists
- Ethernet connection available
- Available in Zero RU vertical & 1RU horizontal models

CYBER SWITCHING®

1281 Wayne Ave
Phone: (408) 436-9830

San Jose, CA 95131
Fax: (408) 436-9828

Power Management

www.Processor.com/ServerTechnology10

NOVEMBER 10, 2006

Switched CW-24V2

Power cycle individual or groups of outlets to remotely reboot network devices.

- 208V to 240V Single or 3-Phase power at 20 or 30A
- Access and Security: Web interface, SSL, SSH, Telnet, SNMP, LDAP, TACACS+, and RS-232 access
- Environmental Monitoring
- Fuse Retractor
- High-Density 24 IEC C13



1040 Sandhill Road
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284 2065

Power Management

www.Processor.com/ServerTechnology11

NOVEMBER 10, 2006

Switched CW-16V2

Power cycle individual or groups of outlets to remotely reboot network devices

- 120V to 240V power at 20 or 30A
- Access and Security: Web interface, SSL, SSH, Telnet, SNMP, LDAP, TACACS+, and RS-232 access
- Environmental Monitoring
- Fuse Retractor
- Mid-Density 16 IEC C13

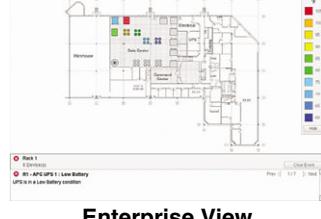


1040 Sandhill Road
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

Power Management

www.Processor.com/ServerTechnology9

SEPTEMBER 1, 2006



Enterprise View

- Remote management of STI Sentry PDUs over IP
- View your entire system from Global View down to the rack level
- Centralized event logging with extensive logs and reports
- Thermographic mapping shows a visual depiction of hot spots in your data center



1040 Sandhill Rd
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

Power Management

www.Processor.com/Baytech3

FEBRUARY 3, 2006



24 Receptacle Remote Power Monitoring & Distribution

- Current, Voltage, Power, and Temp Monitoring
- LCD Screen Display
- RS232 Interface 120/208VAC 10,20,30A Models
- Power Distribution and Monitoring In One Unit



5239 Avenue A
Long Beach, MS 39560
Phone: (800) 523-2702
Fax: (228) 563-7335

Power Management

www.Processor.com/Baytech

FEBRUARY 3, 2006



8 Receptacle Power Control and Monitoring

- Current, Voltage, Power, and Temp Monitoring
- LCD Screen Displays Power Monitoring Information
- RS232 interface, 120/208VAC 10,20,30A Models
- Turn On, Off, or Reboot any or All Receptacles



5239 Avenue A
Long Beach, MS 39560
Phone: (800) 523-2702
Fax: (228) 563-7335

Invisible Defrag Is Key

How Hidden Disk Maintenance Can Improve Defragmentation

by Christian Perry

• • •

IF ANY MENTION OF disk defragmentation instantly conjures thoughts of hassle-rife overnight scheduling, it's time to look at a new wave of defrag technology being ushered in by Diskeeper. Thanks to a nifty innovation called InvisiTasking, the once-disruptive task of disk defragmentation can now become a real-time, transparent maintenance function.

"InvisiTasking was the renaissance of technologies we had pioneered in earlier versions," says Michael Materie, director of product management for Diskeeper. "We had developed and refined I/O throttling—in our I/O Smart product—and offered a variety of CPU throttling options in past products. [These were] technologies that gave scheduling more flexibility. However, rather than build on existing concepts, we sought to reinvent a solution because we recognized that no degree of throttling could provide truly invisible background operation."

Defrag Dilemma

Diskeeper has a long history in the defrag business, dating back 20 years to the Digital VMS platform, becoming the first-ever Microsoft-certified defragmenter in 1999 and eventually receiving Microsoft certification for Windows 2000 Advanced Server and Windows 2003 Enterprise Edition.

Today, the company continues a tradition of innovation with its newest products, based around the Diskeeper 2007 line, that focus on automation. Materie says that concept found its roots decades ago in the demands of system admins, yet today we still see developers creating software products that require more time and resources than they return. When it comes to defragmentation products, that's a dangerous line to cross because inefficient defragmentation in the enterprise can lead to lower productivity and less revenue.



"If a database is queuing transactions due to fragmentation, or an end user is calling [the] help desk because their PC takes five minutes to boot up, it costs the company time, and time equals money," he says.

Yet even if a defrag program can effectively optimize the file system, there's no guarantee it won't consume excessive system resources and disrupt critical processes. For those programs, off-peak scheduling is required so maintenance won't interrupt client or server systems. However, some servers don't have off-peak hours, and even for those that do, periods between scheduled maintenance might be filled with subpar performance due to increasing fragmentation.

"Many of us have come to accept scheduling as the way things just are," Materie says. "Scheduling one process around another is so acceptable that we all live with it. If scheduling didn't incur the overhead it does and cut into TCO the way it does, InvisiTasking probably wouldn't hold the merits it does."

Cloak & Dagger

Diskeeper's new technology works by tapping into unused CPU and I/O resources, which differs from previous defrag innovations in which the programs would throttle disk and network I/O or try to share resources by choosing lower CPU priorities. InvisiTasking, on the other hand, monitors CPU, memory, and hardware bottlenecks to ensure that the program doesn't interfere with users or services.

"The InvisiTasking methodology involves a kind of self-awareness in how it must behave with other processes on a computer," Materie explains. "It takes measures to ensure that other applications are unaware of its presence by relinquishing resources before another process requires them and ensuring that when it does use resources to do what is required that it minimizes its activity. An InvisiTasking application must also intelligently predict system behavior in advance so that it is not presently accessing the CPU, memory, disks, or network when another process needs them."

How transparent is InvisiTasking? Materie says the prospect of defragmenting a live database server in the middle of the day is generally considered "impossible, risky, or completely insane." However, he recommends that companies test live databases using Diskeeper 2007.

Further, because Diskeeper works so closely with Microsoft, the firm's products exhibit complete compatibility with Windows, regardless of whether a company is using NAS, SAN, or any combination of RAID. In those environments, the effects of fragmentation can and will materialize.

"There's no such thing as free software.' Everything costs." Materie says. "It's just a matter of where the cost comes from. In the end, when all the costs are tallied, Diskeeper works out to [be] the most effective and affordable solution."

Moving Ahead

Although InvisiTasking appears only in Diskeeper 2007 products, Materie expects the technology will eventually be in products designed for anti-malware, file backup, database maintenance, and other apps.

The company is working on other advances related to file system performance, including the effort to expand the once-narrow category of "defrag" into one that addresses optimal performance of disks and file systems. Materie says Diskeeper is partnering with major industry vendors for virtualization performance and enhancements for upcoming solid state and hybrid drives.

"More than ever before, Diskeeper is active in technologies, as opposed to just features for a product," he says. "Many of these technologies will benefit all users, whether they ... use the Diskeeper product or not." □

Diskeeper

Location: Burbank, Calif.

URL: www.diskeeper.com

Founded: July 22, 1981

Founder: Craig Jensen

Interesting Fact: Diskeeper was the first-ever Microsoft-certified defragmenter.

Power Management

www.Processor.com/Aphel3

FEBRUARY 10, 2006

NEW 10,000 WATT BLADE SERVER PDU!

- Designed for standard and blade servers
- 60A/208V (10,000 Watts)
- NEMA and/or IEC outlets
- Local meter and remote monitoring (RS232)
- Connect to traditional console port switches
- UL60950-1 compliant (UL489 breakers)

Nobody Has More Solutions Than Aphel!

Resellers Wanted!

Phone: (978) 928-1488

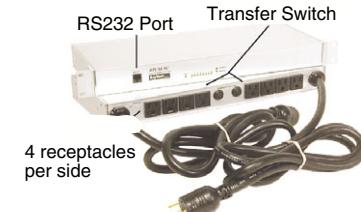


Aphel
connect your world

Power Protection

www.Processor.com/Baytech2

FEBRUARY 3, 2006



8 Receptacle Power Control / Monitoring w/Trans Switch

- Current, Voltage, Power, and Temp Monitoring
- Automatic Transfer Switch
- RS232 or Network Interface 120/208VAC 10, 20, 30A Models
- Turn On, Off, or Reboot any or All Receptacles

BayTech

5239 Avenue A
Long Beach, MS 39560
Phone: (800) 523-2702
Fax: (228) 563-7335

Power Protection

www.Processor.com/ServerTechnology6

SEPTEMBER 1, 2006



Sentry 30-A Fail-Safe Transfer Switch provides fail-safe redundant power to single-power corded equipment.

- Fast Transfer Rate - Power interruption will not affect equipment uptime or performance
- Patented arc-suppression and power in-feed sharing technology extend product life and performance
- High Density - 100 to 240V and 16/32A

Server Technology, Inc.

1040 Sandhill Rd
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

Racks & Furniture

www.Processor.com/Hergo2

JULY 28, 2006

19" Enclosure Cabinet

- 42 U x 36" Deep
- 4 Mounting Rails
- Front and Rear Lockable Doors, choice of Solid, Tempered Glass or Perforated
- 2 Removable and Lockable Side Panels
- 4 Dual Wheels

On Sale and ready to go!



hergo
TECHNICAL WORKSPACE SOLUTIONS

56-01 55th Avenue
Maspeth, NY 11378
Phone: (888) 222-7270
Fax: (888) 410-0671

Racks & Furniture

www.Processor.com/Hergo3

JULY 28, 2006

Hergo iRack Relay Rack 4 Post 19" Relay Rack

- Vertical Mounting Space: 12U, 26U, 42U
- Offered in 3 Depths: 24", 30", 36" Deep
- 4 Heavy-Duty Steel Uprights
- 4 Gliders
- Ships Knock-Down
- Easy to Assemble



hergo
TECHNICAL WORKSPACE SOLUTIONS

56-01 55th Avenue
Maspeth, NY 11378
Phone: (888) 222-7270
Fax: (888) 410-0671

Racks & Furniture

www.Processor.com/ISC5

MARCH 10, 2006

Low Profile 19" Server Cabinet

- Available in variety of sizes: 6U, 9U, 12U, 15U, or 18U
- Cabinet depth choice of 32"D or 39"D
- Quick-release reversible hinged doors
- Universal rack rails fit all major brand servers
- Vented top and bottom panel with cable plate
- Leveling feet



To Learn More, Visit:

www.Processor.com/ISC5

Information Support Concepts, INC

714 N. Watson Road, Suite 302
Arlington, TX 76011
Phone: (800) 458-6255
Fax: (817) 649-1770

All Things To Many SMEs

Total Site Solutions Focuses On Data Center Build Services From Planning Through Maintenance

by Ericka Chickowski

FINDING THE RIGHT consultants to manage a data center project from start to finish can be a bit of a project management exercise in and of itself. Be it the design, planning, construction, or day-to-day upkeep, data centers take a lot to conceive and build, and most firms are only equipped to help IT managers with one or two of those tasks.

For many IT managers thrown in charge of overseeing a data center building or management project, the steps along the way can seem pretty daunting. This is especially true for SMEs that may have limited staff to oversee a new project and ensure IT keeps running smoothly in the interim.

According to Jerry Gallagher, TSS (Total Site Solutions) prides itself in working with SMEs to ease the process of building or renovating a data center.

The company has a long history of building data centers. "We were the nation's first design-build firm that specialized in mission-critical data centers," Gallagher says.

Obviously there was a big need for such services because he and Co-founder Tom Rosato were able to build the company from a \$2 million-a-year company in the early 1980s to a \$120 million-a-year company by the 1990s. It was around this time that they retooled the company to expand its offerings to include maintenance and service and renamed the operation Total Site Solutions.

It was also right around then that the company became very attractive to other

businesses. TSS was gobbled up through a series of acquisitions until, in 2003, Gallagher and Rosato decided they wanted to return to the basics with their old crew and asked to purchase a few divisions from their parent company and revive TSS as it once was. Those four divisions now make the company.

Company Divisions

The first division, Technology and Consulting, helps companies consider the preliminary details related to a big project.



"This division gets engaged with the client very early in the project cycle," Gallagher says. "What we do is help clients plan their projects, develop schematic designs, develop preliminary budgets—basically get their arms around the project to develop the parameters of the project. All of the initial steps of a project are covered by this division."

These steps can include helping clients locate new sites for the project or assess existing facilities to increase infrastructure reliability and make them tenable for a future data center. During this work, TSS employs architects, engineers, telecommunications designers, security system professionals, and

others to help lay the groundwork and begin the budgeting process for its clients.

The second TSS division, Design and Engineering, helps customers where Technology and Consulting leaves off. "This is the group that takes the schematic designs and preliminary programs and moves the project forward through complete design and construction documents," Gallagher says.

Basically, it gives the construction crew the deliverables it needs to do the job.

Construction Management is the third division of the company. "All of the people in this division take the project and deliver it in the field," Gallagher says. "This is the largest of our divisions because this is

where the construction process is executed."

When customers use this division for a new build or a renovation, TSS handles project management, construction management, and systems installations.

The final division is Facilities Management. The staff in this division takes the finished project and makes sure the infrastructure is up to par to keep IT systems up and running. This includes maintenance of systems such as fire protection, electrical, air conditioning, access control, surveillance, and telecommunications.

"They make sure these systems are maintained properly and in operation and service 24/7," Gallagher says.

Value Proposition

Taken on their own, each division of TSS is far from unique in their field. It is

the fact that they operate together as one company that adds value to the customer, says Gallagher.

"I think it's quite unusual to have under one roof all of the services required to fully execute a project," he says. "We're fully capable of providing a complete turnkey package or various components, depending on the needs of our client."

In some cases, he says, customers may only want help during the planning stages and then use a construction company they've used in the past. Or they may have an existing facility that they'd like TSS to manage. But even then, the fact that TSS has all the capabilities in-house provides an advantage to the customer.

"Even if a client might not engage us for all of the services at once, they understand that when we develop conceptual designs and budgets, we are going to be pretty much on the money with our budgets and schedules because we also build sites," he says. "So when we produce a budget, it doesn't come from us looking it up and estimating it—the guys that do the budgets are doing cost estimating for our own construction projects."

Total Site Solutions

Location: Columbia, Md.

URL: www.totalsiteteam.com

Founded: 1978

Founders: Jerry Gallagher and Tom Rosato

Interesting Fact: Total Site Solutions will do about \$70 million in business this year.

Racks & Furniture

www.Processor.com/Sewell11

\$1,179



OCTOBER 27, 2006

- Easily modifiable and expandable
- Pop up lock and three point locking mechanism
- Multiple cable entry points on the roof and bottom of the frame
- Vented top panel
- Rigid, welded frame construction

SEWELL
SEWELLDIRECT.COM

1055 S. 1675 West
Phone: (800) 709-1345

Orem, UT 84058
Fax: (801) 356-3823

Network & Systems Mgmt.

www.Processor.com/Candela1

AUGUST 4, 2006



LANforge ICE WAN Emulator

- Emulates networks, including DSL, T1, DS3, OC3, and Satellite
- Supports 0 to 1 Gbps bandwidth limitation, latency and jitter, packet drops, duplicates, and reorders
- Excellent for testing any application that runs over networks, including VoIP

Candela
TECHNOLOGIES

2614 Aldergrove Rd.
Ferndale, WA 98248
Phone: (360) 380-1281
Email: sales@candletech.com

Racks & Furniture

www.Processor.com/TRacks4

NOVEMBER 10, 2006



TotallyRacks.com

The Rackmount Expert

14137 Tiger Lily Court
Phone: (951) 833-3319

Corona, CA 92880
Fax: (951) 340-2089

KVM & Console Access

www.Processor.com/i-Tech75

APRIL 7, 2006



Rackmount LCD Drawer
w/KVM Over IP
\$1900
New Product!

i-Tech SuperStore for Rackmount LCD Console Drawer

- 15", 17", 19" & 20" is also available
- Optional with 8/16 ports KVM
- New integrated with Remote Access via CAT5 and via IP
- New SUN Solaris Rackmount Keyboard

Free Grd Shipping for all Rackmount LCD KVM Drawers!

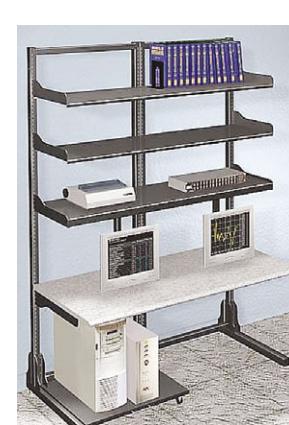
i-TECH
COMPANY
RACKMOUNT SOLUTION

30081 Ahern Ave
Union City, CA 94587
Phone: (888) 483-2418
Fax: (510) 372-2736

Racks & Furniture

www.Processor.com/Hergo4

JULY 28, 2006



- Technical Workstations
- Pre-configured or Made to Order Units
 - Heavy-duty 11-Gauge Steel Frames, Legs and Shelf Brackets
 - Frame Sizes: 72" or 84"H, 24, 30 or 36"W
 - High-Pressure Laminated Desktops
 - Cable and Power Management Options
 - Flat Panel or CRT Monitor Mounting Solutions
 - Nationwide Delivery and Installation

hergo TECHNICAL WORKSPACE SOLUTIONS

56-01 55th Avenue
Maspeth, NY 11378
Phone: (888) 222-7270
Fax: (888) 410-0671

PROCESSOR.COM®

THE INSTANT
ACCESS
YOU NEED.



See all that's available today at
www.Processor.com

Verari Systems

Staying Close To The Cutting Edge To Gain A Competitive Advantage

by Chris Jackson

• • •

THE CHALLENGE FOR IT departments in the SME is to support existing infrastructure and technology while always being alert for new technologies that can provide them with a competitive edge in the marketplace. Although many of the big-name OEMs provide end-to-end service, companies such as Verari Systems throw a bit more spice into its entrees. Whether it's selling and supporting high-density rackmount systems and storage, HPC cluster software and deployments, or providing traditional server sales and support for vanilla servers and workstations, Verari is trying to stay more nimble than IBM (www.ibm.com) and HP (www.hp.com).

Founded in 1996, Verari's bread and butter has been the traditional rackmount x86 server. "I always loved technology, and starting Verari was a way to get to play for almost free," says Founder and CTO David Driggers. Although rackmount servers are still a significant element of Verari's business plan, Driggers feels that the industry is finally coming around to Verari's embrace of blade servers.

The Competitive Edge

For the SME, blade servers offer incredible amounts of performance in limited space, and Verari has leveraged this with

dense storage platforms that mesh together using Verari's cluster management software. How dense? Verari's VB5150 Storage Subsystem can pack up to 360TB of data in a 7-foot cabinet. The BladeRack 2 offers the fastest blade servers in the industry and for good reason. "Our strongest competitors are IBM and HP, and we need to deliver the densest and most powerful systems to beat them," says Driggers.



Verari's competitive edge in HPC systems stems from providing a complete solution to customers who require high-performance computing environments. Not content to sell disparate components, Verari has built cluster management software that provides flexibility, scalability, and configurability, helping to reduce TCO for the SME. The VCC (Verari Command Center) suite ships with the BladeRack 2 systems, and in addition to its GUI interface, many of its functions are available through the command line.

One key to providing high-density blade systems is coping with the thermal output created by the blades and storage systems. Traditional systems rely upon convection cooling to circulate air throughout the rack.

Although this worked when utilized for traditional rackmount servers, blade servers simply generate too much heat to be effectively cooled in this manner.

Verari's solution is to utilize vertical cooling. Instead of using convection to move air from the front of the rack to exhausts in the rear, the BladeRack system uses high velocity vertical cooling to move cool air through the rack from top to bottom. This helps dissipate the high levels of heat generated by today's processors.

An additional strategy that Verari pursues is offering DC-powered systems as a complement to its AC systems. DC systems eliminate the need for inefficient AC power supplies in the blade servers, and Verari claims a 90% efficiency rate for its DC cabinets. In addition to reducing energy consumption, this also helps to minimize the amount of waste heat that needs to be dissipated.

The Multicore Factor

Although Verari has strong roots in the traditional rackmount industry and is currently focused on blade systems using AMD's Opteron CPU (www.amd.com) and Intel's Xeons (www.intel.com), Driggers sees an exciting opportunity as multicore CPUs become prevalent. "Multicore CPUs are probably going to be the biggest influencer on Verari technology. With the computers becoming so much more powerful with multicore technology, virtualization is going to move front and center to increase the utilization of all that power."

According to Driggers, using this increased amount of processing power will change how SMEs do business. "A receptionist just is not going to need the power that the most basic computer is going to provide in the coming years." Virtualization will be one method used "either virtualizing their desktop or recapturing the extra performance for other work" by using the CPU power in a distributed processing network.

New technology is the lifeblood of companies such as Verari. Verari has grown as super cluster computing has enjoyed remarkable growth in the last five years. From its humble beginnings, Verari has emphasized staying ahead of its competitors by staying close to the proverbial cutting edge. "New technologies are usually a boon for us. The worse situation is when emerging technologies either are delayed a long time or fizzle." The result is, "we lose our competitive edge against our slower, bigger competitors who eventually catch up."

Despite this competitiveness, Verari has a plan for staying ahead of IBM and HP. Driggers says, "We are always looking for new ideas from our customers, partners, and competitors. The company has become larger than I imagined in the beginning but is still doing exactly what we started out as." □

Verari Systems

Location: San Diego, Calif.

URL: www.verari.com

Founded: 1996

Founders: David Driggers, John Smith, Gene Kim, and Victor Hester

Interesting Fact: The name Verari comes from two parts: "Ver" from vertical cooling, and "ari" from aria, "combined together to create a unique customer experience as 'one voice.'"

ENVIRONMENTAL MONITORING

OCTOBER 27, 2006

Protect Your IT Equipment; Don't Wait Until It's Too Late

Monitor Your IT Environment Using Wireless Sensors



AVTECH SOFTWARE'S Room Alert 26W is a hardware/software solution that allows easy monitoring of critical environment conditions in the computer room, rack cabinet, or other facility. These physical environment conditions include temperature, humidity, power, flood, smoke and fire, motion, room entry, and more. With built-in Wireless Sensor Monitoring, Room Alert 26W lets users monitor conditions in multiple locations throughout a computer room or building, without the expense and labor of running sensor cables. Once an issue or event is detected, Room Alert 26W alerts managers and staff, allowing an immediate response and automatic corrective action to avoid or minimize downtime and costly hardware replacement.

Environment monitoring is critically important because computer and network equipment is designed to operate at its best within a specific range of environment conditions. If these conditions get out of bounds, then unpredictable and potentially catastrophic results can occur to cause extreme system, application, or hardware

problems. This makes it appear to the world that your organization is out of business, can cause delays in service, and may create significant problems and huge losses in revenue.

Once Room Alert 26W is plugged in to the network, users can immediately view the monitored condition status using their Web browser via Room Alert's built-in Web server. No PC is required! Users can use their favorite monitoring software, such as PageR Enterprise, to monitor unlimited units network-wide via SNMP.

Room Alert 26W

A hardware/software solution for easy remote monitoring of critical environmental conditions

\$1,195

(888) 220-6700

www.Processor.com/Avtech13



What Are You Looking For?

If you don't see it in Processor or at www.Processor.com,

let us know.

We'll help find it for you.

(800) 247-4880

feedback@processor.com

PROCESSOR®

Keeping Data Centers Safe

Continued from Page 1

a computer by its serial port. Unlike the EM1 and the E IT, the Model F does not offer Ethernet support or a built-in Web server, but at roughly half the size of a deck of cards, such features seem superfluous.

Looking Ahead

Sensatronics' client list includes AMD, DreamWorks, Dunkin' Donuts, FedEx, Ford, and HP. But according to Stanisewski, small to midsized enterprises can benefit from the firm's products, too.

"If the heat in the data center rises—for whatever reason, whether the AC fails or someone leaves the heat on in the middle of the summer—then sensitive equipment can become damaged," he says.

That can lead to outright disaster or smaller but still nettling problems, such as bits of lost data or slower Web servers. But no matter the problem, the solution is always expensive, whether it's replacement equipment or the overtime of data center staff. And for SMEs, Stanisewski notes problems from heat, water, or humidity can be terminal.

"Most smaller companies probably don't think about it, but if there's a problem, it may be more significant to them because they don't have the capital to just buy new equipment," he says.

What's more, too few companies take action to prevent heat and water problems, even though each is a clear and present danger to the data center.

"Most commonly, our customers just walk into the room on Monday morning, and it's just hot," says Stanisewski. "Now they have to react to that problem, and that could be a significant financial problem or significant time put into reloading applications or trying to recover data."

Sensatronics

Location: Bow, N.H.

URL: www.sensatronics.com

Founded: 1991

Founder: Keith Wright

Interesting Fact: Sensatronics does not charge for support. "Basically, we feel our product is really good," says Curt Stanisewski, the company's marketing manager. "We have very little issues and don't feel the need to charge for tech support."

Does Your SME Have A Remote Access Strategy?

Continued from Page 1

remote user can access remotely. Henry says, "The vast majority of remote access implementations today mistakenly relies on user behavior and encryption as their primary security components. Unfortunately, while user awareness is a necessary component of any security program, it can best be described as trying to nail jelly to the wall. The simple fact of the matter is workers are concerned more with getting their jobs done, and security is clearly not their focus."

Henry says the security issues of mobile workers are actually compounded because of the use of encryption for mobile users because their connection most often terminates behind the enterprise gateway security infrastructure. "Effectively, your most vulnerable workers are connecting to the enterprise without any policy enforcement." Any

mobile worker can visit an inappropriate Web site and get infected with a Trojan. He says because the connection is encrypted and cannot be inspected by an enterprise firewall or gateway security device, it is most often terminated inside the enterprise network.

"Hence," Henry says, "the hacker that controls the Trojan simply waits for the mobile user to connect to the enterprise network and then uses the mobile worker's encrypted connection to enter the enterprise network unabated. The hacker can move malware into the enterprise or remove confidential data out of the enterprise without leaving a trace."

Robert Eryou, co-founder and head of research and development at Cryptolex (cryptolex.com), says most firms have limited visibility to existing and potential access vectors into their diverse information resources. "Obvious examples," Eryou says, "include vendor remote system access, client access, and internal user access. Companies often overlook access systems such as mobile devices, physical access to information resource devices, and the most exploitable—people access to information." Eryou says very few access strategies encompass all these access vectors in a unified and controllable manner.

Henry says, "You first need to identify the risks you have exposed your enterprise to with your current mobile connectivity and address those risks, or you may very well not have a tomorrow to be concerned with. Because of the current state of insecurity in mobile connectivity, I believe it is more important to address current security concerns. Only when current security issues have been properly addressed can you access where you want to go in the long term and have a real handle on the cost to get there."

In the same vein, Eryou adds, "Absolutely any access to information resources must be controlled and audited to protect the operations of the company. Many organizations

take great care putting a biometric access control lock on their data center door but allow simple passwords to remotely access the data. An organization can easily span locations, disparate user groups, time zones, and digital and physical spaces, so due care must be taken to protect any and all access into a company's resources."

A Strong Strategy

Eryou says when developing a remote access strategy, enterprises need to consider balance. He says, "All previous solutions have been point solutions solving only one access control issue (such as remote VPN access, Web mail login access, or physical location access). This leaves the end user with a usability problem and a privacy or transferability problem, with multiple access control devices ranging from tokens to passwords to smart cards to PIN codes." Eryou says security is a balance of usability and security, and striking the correct balance is crucial to user adoption and productivity.

Henry says enterprises need to understand encryption when considering a remote access strategy. "First and foremost," he says, "we need to understand that encryption only affords the confidentiality of data in transit. While encryption is a necessary component of security, by and of itself it affords nothing more than confidentiality. Failing to address endpoint security is our biggest issue today in remote connectivity."

Henry adds, "Passwords are obsolete—it is no longer debatable. Out-of-band two-factor authentication is the only acceptable approach. Tokens, smart cards, and biometrics offer higher risk mitigation than their in-band counterparts like soft tokens and other failed approaches such as on-screen keyboards." He says manageability is a critical factor in remote access solutions. "Having the ability to centrally manage users across the enterprise is an absolute necessity. Trying to deal with multiple point products at each entry to the enterprise is error prone and costly to manage."

In Henry's opinion, the next worm to attack your enterprise network could come from the inside because of the unsecured connection from a mobile user. He says,

"The investment that the enterprise has made in perimeter security is meaningless if the enemy is already inside the gate. IDC estimates that 60% of serious threats come from internal sources, including remote users. It's not rocket science; end-point security is often overlooked and has become the current low-hanging fruit for malicious hackers. A compromised remote laptop can quickly lead to the compromise of the enterprise network."

According to Henry, mobile workers working outside the protective boundary of the enterprise network are left to face the dangers of the Internet without the enterprise security infrastructure. He says, "Simply put, this leaves critical business data that is held locally (and accessible remotely by the mobile user) especially vulnerable to attack."

SPONSORED LINKS

BitArmor Strong Authentication

Ensure that only authorized users have access to sensitive data with BitArmor's cryptographically enforced authentication

www.Processor.com/Bit

Infoblox 1050 Network Identity Appliance

Designed to serve small and medium-sized enterprises and branch-office applications; can be deployed as a standalone unit or in high-availability pairs

www.Processor.com/NIA1050

InfoExpress CyberGatekeeper with Dynamic NAC

Detects and quarantines unauthorized endpoints from the network; catches misconfigured endpoints, unauthorized network devices, and rogue systems

www.Processor.com/DNAC

Oakley Networks Integrated Solution

Eliminate insider threats and provide visibility into the behavior of users from the network to the desktop, across all communication channels, and for encrypted traffic and even offline mobile users

www.Processor.com/Integrated

Secure Computing SafeWord SecureWire

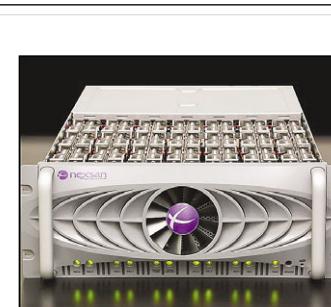
Powerful identity and access management appliance that secures access, enforces policy, and provides complete and customizable reporting for your entire network

www.Processor.com/Secure

A One-Size-Fits-All Approach

In terms of remote access, Secure Computing (www.securecomputing.com) believes that current technology IAM (identity and access management) appliances go a long way toward meeting the one-size-fits-all need of the small to midsized enterprise because they:

- Address the issue of endpoint policy validation
- Afford multiple choices in two-factor authentication mechanisms
- Integrate with existing Active Directory implementations, thereby easing integration and affording manageability from a familiar interface
- Afford granular policy-based control as to who has access to what enterprise resources
- Are highly scalable, and there is no latency penalty as the user base expands



STORAGE

OCTOBER 13, 2006

Maximize Your Storage Investment

Nexsan SATABeast Sets New Standards For Performance & Efficiency

THE SATABEAST extreme density storage array from Nexsan Technologies delivers the industry's best performance and cost-effectiveness in a scalable disk solution. It's the first high-performance, high-capacity RAID storage system to utilize AutoMAID technology, which lets the SATABeast place disk drives in an idle state to conserve energy yet still provide near-instantaneous access to data—the

SATABeast lets you access data up to 500 times faster than tape libraries and 20 times faster than other MAID systems.

The SATABeast can scale up to 305TB in a single rack (up to 42 SATA drives in a 4U chassis). It includes single or dual-redundant RAID controllers with FC and iSCSI connectivity, up to 2GB cache per controller, two redundant power supplies, and support for multiple RAID sets and volumes per set.

Other features include:

- The latest high-capacity SATA drives
- OS-independent architecture
- More than 700MBps throughput
- Redundant, hot-swappable components
- RAID levels 0, 1, 1+0, 4, 5, and 6

The SATABeast is ideal for:

Primary storage. Fast wire-speed read/write throughput and high IOPS performance—perfect for data-intensive apps.

D2D backup. Provides the speed, fault tolerance, and availability to deliver superior disk-based backup with a smaller footprint and less cost than tape libraries.

Secondary storage. Enterprise-class features and performance enable large file repositories to be stored on a single system. SATABeast requires no drivers and easily integrates into existing infrastructures.

Online archive. The unmatched capacity of the SATABeast easily handles enormous volumes of files. With its energy-saving AutoMAID technology, SATABeast enables massive archives to be cost-effectively stored and instantly accessed.

Nexsan SATABeast

The industry's most complete and cost-effective high-capacity storage system, with up to 305TB in a single rack

(866) 463-9726

www.Processor.com/Nexsan



KVM & Console Accesswww.Processor.com/Rose

NOVEMBER 25, 2005

**Rack Mounted KVM Drawer - RackView™**

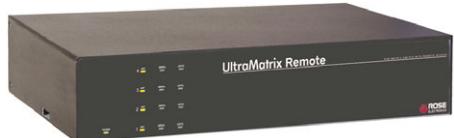
- 15", 17", or 19" LCD Panels
- Built-in single or multiple user KVM switch options
- Supports AT/XT, PS/2 and Unix computers
- Front Panel conceals unit when it is not in use
- Keyboard available in international variations
- LCD flat panel and keyboard/trackball can be sold separately



10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

KVM & Console Accesswww.Processor.com/Rose3

MAY 6, 2005

**UltraMatrix™ Remote Server Management**

- Connects 1,000 computers to multiple user station over IP
- Secure encrypted operation with computer access control
- High-quality video up to 1,280 x 1,024.
- Advanced visual interface (AVI). Easy to expand.
- No need to power down servers to install
- Free lifetime upgrade of firmware. Call for other models



10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

KVM & Console Accesswww.Processor.com/Rose6

JANUARY 20, 2006

**Features and Benefits**

- High resolution - up to 250MHz
- Three chassis sizes to choose from
- Connectors available in two styles
- Optional on-screen menu on L-Series units
- Works with all PCs & most UNIX workstations
- Low cost - Made in USA - CALL for many more Benefits



10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

KVM & Console Accesswww.Processor.com/Rackmount19

SEPTEMBER 1, 2006

\$1899.95

**ACME Portable Rack-Mountable KVM Switch**

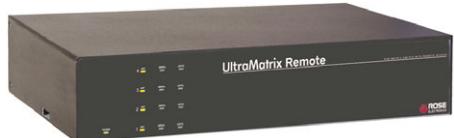
- 16-port KVM Screen/Keyboard/Touch Pad
- Built-in Side Railing for Instant Installation
- Meets EIA-310C and IEC-3 Specifications
- Tempered Glass Protected 19-inch Display
- Custom Colors Available
- 19-inch TFT 1280 x 1024



1055 S. 1675 W.
Orem, UT 84058
(800) 709-1345

KVM & Console Accesswww.Processor.com/Rose3

MAY 6, 2005

**UltraMatrix™ Remote Server Management**

- Connects 1,000 computers to multiple user station over IP
- Secure encrypted operation with computer access control
- High-quality video up to 1,280 x 1,024.
- Advanced visual interface (AVI). Easy to expand.
- No need to power down servers to install
- Free lifetime upgrade of firmware. Call for other models



10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

Monitors & Displayswww.Processor.com/Recortec

NOVEMBER 10, 2006



Processor readers special (1-9 units): \$495

19" WIDE FORMAT LCD RACK MOUNT MONITOR

- 16:10 aspect ratio monitor mounts in 7U of rack space
- 1440 x 900 res, 300 cd/m² brightness, 500:1 contrast
- Analog RGB (ARGB) and Digital (DVI-D) video inputs
- 160/160 degree Horizontal/Vertical viewing angles
- 4 ms G-G response time, 16.2M colors

RECORTEC

1620 Berryessa Road
Phone: (800) 729-7654

San Jose, CA 95133
Fax: (408) 729-3661

Serverwww.Processor.com/Arbor

AUGUST 4, 2005

**Professional Network Appliance Hardware Provider
Connecting Everything You Need**

- Intel Pentium D processor up to 3.8GHz
- Memory up to DDR2 2GB
- 6 x PCI-E Gigabit LAN / 2 x PCI-E Gigabit LAN with By Pass
- Support SATA HDD (3Gb/s) / Graphic Mode LCM



2032 Bering Dr.
Phone: (408) 452-8900

San Jose, CA 95131
Fax: (408) 452-8909

Storagewww.Processor.com/PowerFile1

SEPTEMBER 15, 2006

**The new Active Archive Appliance (A3) features:**

- A turnkey archiving appliance—set up in 30 minutes
- Start with 3.4TB, scale to 30TB per volume
- Work with existing ILM software tools
- Mount as standard network share
- Store on industry-standard media with 50+ years life
- Provides protection in an all-in-one archival system

PowerFile®
ACTIVATE YOUR ARCHIVES

3350 Thomas Road
Phone: (866) 838-3669

Santa Clara, CA 95054
Email: sales@powerfile.com

Storagewww.Processor.com/Digilant

OCTOBER 20, 2006

**Digilant 3U Linux Based NAS Storage Device**

- Data Capacity from 1.28TB to 12TB
- 10/100/1000 Ethernet Connectivity
- RAID 0 to 5 Supported
- Fast SATA Hard Drives with NCQ Supported
- Network Cards Teaming Supported
- Multi-Platform Support



2283 W. Grand River
Okemos, MI 48864
Phone: (800) 306-2199
Fax: (517) 381-7777

Storagewww.Processor.com/ExcelMeridian3

DECEMBER 2, 2005

2TB

\$5,489

4TB

\$8,979

**SecurStor XRS - RAID 6**

RAID 6 (eXtra Raid Security) provides dual parity that virtually eliminates the possibility of data loss due to drive failure. High-speed and dependable disk-to-disk technology. Ideal for tape library replacement, server consolidation, and cluster configurations, including email, web, and database servers. On-line capacities up-to 8TB per array.



3220 Commander Drive, # 101
Carrollton, TX 75006
Phone: (800) 995-1014
Fax: (972) 980-0375

A subsidiary of Alanco Technologies, Inc.

Storagewww.Processor.com/areca

MAY 19, 2006

**PCI-Express SATA II 3Gb/s RAID Controller**

Featuring RAID 6 and also 0, 1, 0+1, 3, 5 and JBOD 4, 8, 12, 16, 24ports, Intel I/O Processor, DDR Memory Online RAID Level/Stripe Size migrations, Online RAID Capacity expansion and RAID level migration simultaneously, NCQ and Staggered Spin-up Support, Battery Backup ready, I2C, Full OS Support.



2861 Saturn St. Unit B
Brea, CA 92821
Phone: (714) 961-0800
Fax: (714) 961-0899

Workstationwww.Processor.com/Arbor2

AUGUST 4, 2005



The 1st SATA RAID 5 Hot-swap Midtower Chassis in the World!

- Dual Intel Xeon processors up to 3.06GHz
- Super X5DAL-TG2 server board/533FSB
- Up to 8GB ECC Reg. DDR 266 SDRAM
- 18 x AGP Pro 1.5V slot
- 2 64-bit PCI/X 66/133, 2 32-bit PCI
- Dual Gigabit LAN Ports
- 12" x 9.8" ATX form factor



Embedded and Network Computing

2032 Bering Dr.
Phone: (408) 452-8900

Fax: (408) 452-8909

TemPageR™ ... The Computer Room Temperature Monitor

Protect Valuable Equipment & Reduce Downtime By Monitoring Temperatures In Rack Cabinets, Computer Rooms & Data Centers



1U 19" Rack,
Drop Ceiling & Wall
Mounting Kits Available.

\$295 List... 1U Rack Model For \$345

- Arrives assembled & ready to install in minutes
- Allows real-time temperature monitoring & logging
- Includes 1 built-in & 1 external digital temperature sensor
- Allows 2 additional external digital temperature sensors
- External temperature sensors can be up to 100' from box
- Includes *PageR Enterprise* for expanded monitoring
- Allows actual temperature values in alert messages
- Allows notification to individuals and groups
- Allows notification by email, SMS, SNMP & more
- Connects via Ethernet for easy & immediate use
- Allows management through a web browser
- Requires NO host PC, additional software use is optional
- Includes TemPageR box, 10' Ethernet cable, CD, manuals
- 'Universal' Power Adapter, RoHS, works worldwide
- Includes Toll Free sales & technical assistance
- Includes 1 year 'Maintenance Support & Update Service'
- Includes a '30-Day Satisfaction Guarantee'
- Incorporates AVTECH's almost 20 years of experience

Save \$\$... Order TemPageR Today!

No one knows when or how disaster will strike. We just know the potential is always there. An early warning is critical to minimize the impact on computers, networks, users & the organization. When disaster occurs, there are significant costs in areas that go far beyond the simple replacement of damaged hardware. This is because what happens in your data center affects the entire organization and maybe even your customers.

Temperature monitoring is one of the biggest threats facing today's dense computer rooms and data centers. More and more hardware is placed in each rack and rooms that were never designed to house computers are often converted to IT data centers. Air conditioners are typically undersized, poorly placed, not maintained and run continuously until they die. When aircon units fail, critical servers continue to operate and crank out heat while cooling systems remain disabled. *Oops!*

Computer and network equipment is designed to operate within a very specific range of temperatures. Basically, if your data center rises above 85° F, you're cooking your hardware and increasing the risk of failure. Unsure... just ask IBM, HP, Dell, Liebert or APC. The bottom line is that you need to know immediately when temperature issues arise because recovery is simply too expensive.

**"25% of all data centers experience downtime more than 5 times a year...
60% of these last more than a half day."**

Thankfully there's **TemPageR**, the low price, high value solution that monitors 24x7 to automatically alert your staff when temperature extremes or changes occur. It will log temperatures for easy export, runs without a host PC and easily integrates with advanced monitoring software like *PageR Enterprise*, *OpenView*, *Tivoli* & *Unicenter*. **TemPageR** is proven protection used by Fortune 1000, Pentagon, United Nations, NASA, U.S. government and businesses large & small... *Why not at your facility?*

AVTECH Software has almost 20 years of experience serving data centers around the world. Our **TemPageR** product provides reliable, 'real-time' digital temperature monitoring with advanced features. Easy to install and configure, your staff can have **TemPageR** operational in minutes to protect your equipment and data center. If you're looking to monitor more than temperature, then consider one of our powerful **Room Alert** models to monitor temperature, humidity, power, flood, smoke, entry, and more. Our alerting and automatic corrective action capabilities are the most advanced available.

"Immediate detection & alert notification are the #1 ways to reduce downtime costs."

To learn more about **TemPageR** or **Room Alert**, visit us online or call to speak with a product specialist. We're happy to send you printed literature, quotes, evaluation CD's and more. You can request product quotes online for immediate delivery by email. AVTECH Software products ship complete with everything you need and include printed documentation, toll free technical support and a '30-Day Satisfaction Guarantee' return policy.

Buy Online or Call To Place Your Order

1.888.220.6700



www.AVTECH.com

Our New "Wireless" IT Environment Monitor...

Room Alert 26W

www.RoomAlert.com/pro26.htm

Built-In Features:

- Digital Temperature Sensor
- Digital Humidity Sensor
- Main Power Sensor
- Flood Sensor, Reset Button
- LED Status Indicators
- Uninterruptible Power Supply
- Wireless Sensor Capability
- Web Server, Auto Actions

INCLUDES: Room Alert 26W Rack Unit (1U 19"), built-in Digital Temperature sensor, built-in Digital Humidity sensor, built-in Main Power sensor, built-in Flood sensor (just add Flood cable), external Digital Temperature sensor, external Room Entry sensor, 6 external Digital Sensor Ports (RJ-11), 16 Switch Sensor Channels, unlimited Wireless Sensor capacity, LED Sensor Status & Wireless Strength indicators, built-in Uninterruptible Power Supply (UPS), Wireless Sensor Hub, Ethernet Connection (RJ-45), Expansion Port (RJ-45), 10' Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, bundled PageR 20 Object Enterprise license, CD installation & resource media, printed User's Guides & Reference Manuals, 12 months of Maintenance Support & Update Service, '30-Day Satisfaction Guarantee'. Additional sensors available.



Just \$1,195

**Call Now For Your
Special Introductory Offer!**

Online: EnvironmentMonitor.com

• Phone: **888.220.6700 / 401.847.6700** • Fax: **401.847.6701**

TemPageR 4E

www.TemPageR.com/pro4.htm



TemPageR Is...
**The #1 Choice Worldwide For
IT Temperature Monitoring!**



Rack Model # TMPE-ES1-RAS \$345
Standard # TMPE-ES1-BAS \$295

Room Alert 7E

www.RoomAlert.com/pro7.htm



**Monthly
Specials
Online**

Room Alert... Has The Best Value Ratio Available.
View Individual Features & Model Comparison Online.



Rack Model # RA7E-ES1-RAS \$445
Standard # RA7E-ES1-BAS \$395

Room Alert 11E

www.RoomAlert.com/pro11.htm



**Room Alert 11E... Protects More Critical
Data Centers Than Any Other Product Of Its Class.**



Rack Model # RA11E-ES1-RAS \$545
Standard # RA11E-ES1-BAS \$495

Product Releases

COMMUNICATIONS

Security

■ **Data Comm** has added the hardware-encryption ET-6601 Encrypted Tunnel device to its family of DCB encryption devices, which also includes the ET-3300 and ET-6600 for encryption at a megabit data rate. The ET-6601 features encryption up to 13Mb, while the ET-6604 model features 40Mb encryption and the ET-6620, 200Mb. The ET-6601, which can tunnel hundreds of PCs and other devices among various locations, has a MAC address table for 2,048 entries, as well as the ability to create a secure flat bridged network. The ET-6601 includes no licensing fee per user and is temperature-rated for industrial applications from -40 to 75 degrees Celsius.

• • •

■ **Secure Computing** introduced Webwasher 6.0, the latest version of its Web Security Gateway that protects IT systems from malware. Webwasher 6.0 integrates CipherTrust's TrustedSource and is available in three appliances. Webwasher 6.0 protects against malware, Trojans, and phishing attacks in several ways. One of its sources of protection is blocking employees from browsing malicious sites. Version 6.0 now includes Webwasher Anti-Malware, which incorporates Secure Computing's ProActive Security filters. Webwasher 6.0 is available for Windows, Linux, and Solaris.

Webwasher WW500 (up to 4,000 users) costs \$2,995. Webwasher WW1100 (up to 8,000 users) costs \$6,995. Webwasher WW1900 (up to 16,000 users) costs \$13,995.

Storage Networking

■ **Mellanox** has announced its fourth-generation adapter architecture called ConnectX. Supporting 10Gbps and 1Gbps Ethernet in addition to 20Gbps and 10Gbps InfiniBand, ConnectX also supports IPv4, IPv6, and various common data networking and storage protocols. Future support for 40Gbps InfiniBand is planned, the company says.

Switch

■ The XG2000 switch series from **Fujitsu** offers low latency (300ns), Layer 2, non-blocking (400Gbps), 10Gbps Ethernet switching on a single chip. Configurations include a 20-port optical XFP variant and a 16-port CX4/4-port optical XFP option. Both configurations fit in a 1U rack space.

END NODES

Mobile

■ **Motion Computing** launched a protective case to add resistance to shocks, bumps, water, and dust and increased durability for its LE-Series tablet PCs. With a hinged clamshell design, the Motion Protective Case supports use of the tablet in

harsh work environments and encloses the tablet while providing access to major ports and full functionality of the tablet experience. The case also includes an X-shaped hand strap on the underside for holding the tablet, a molded carrying handle, and a four-point shoulder strap. Additional features of the Motion Protective Case include PC Card enclosure with a PC Card Pod, a clear vinyl screen protector, an External Digitizer Pen holder, and built-in fans to support thermals of tablet use in an enclosed case.

Printer

■ **Gestetner** has launched the DS520pfl, an MFD that offers copying, printing, Super G3 Fax capabilities, and full-color and black-and-white scanning. It also has an all-in-one toner cartridge. The DS520pfl can print at up to 22ppm and has a resolution of 600dpi. It has a 550-page capacity paper tray and a USB Flash Drive Port. The MFD also has a 50-sheet automatic document feeder and Readiris Pro 9 OCR software. The MSRP of the DS520pfl is \$485.

• • •

■ **Lexmark** introduced the Lexmark X9350 Wireless Office AIO (All-in-One) with two-sided printing. Priced at \$279, the Lexmark X9350 is the only AIO in its class equipped with built-in wireless connectivity and automatic two-sided printing. The X9350 uses the new Evercolor 2 pigmented

inks. The Lexmark X9350 can print at speeds up to 32ppm black and 27ppm color. Additional features include a 150-sheet input tray, 2.4-inch adjustable color LCD display, 48-bit flatbed color scanning, 4,800 x 1,200dpi print resolution, and Lexmark Productivity Suite software.

• • •

■ **Ricoh USA** has announced the AC205L, a multifunction device with copy, scan, print, and fax capabilities. The AC205L has a small footprint, includes an All-in-One Toner Cartridge, and has a 550-sheet capacity tray. The AC205L can print at up to 22ppm and has a 50-sheet Bypass tray for printing transparencies, labels, card stock, and envelopes. Its Readiris Pro 9 OCR software can convert scanned copies into digital text, and a USB port lets users print directly from a USB flash drive. The MSRP is \$485.

• • •

■ **Savin** has introduced the 8025e and 8030e Series MFDs. An RPCS Network Printing configuration makes it simple to upgrade to faxing and PCL/Scanning. The 8025e Series prints at up to 25ppm, and the 8030e Series prints at up to 30ppm. Both Series offer 600dpi resolution, a 466MHz processor, and 384MB of memory. The new MFDs also have Scan-to-URL support for accessing documents through a URL. The MSRP for the Savin 8025e starts at \$5,085, and the MSRP for the Savin 8030e starts at \$6,435.

Go to Page 17

Insecticide For Your SME's Systems

AdventNet QEngine Issue Manager 4 Oversees & Controls Software Bug Problems

by Robyn Weisman

• • •

THE LITTLEST GNAT of a software bug can create elephant-sized problems for an organization. Therefore, the ability to detect and manage bugs is an important one, whether you are developing software for your business or installing an update to a current program on all the client PCs in your department.

AdventNet's QEngine Issue Manager 4 provides users with comprehensive and inexpensive bug-tracking software. Using a Web-based interface, QIM offers a wide range of tools that not only offer innovative means to trace potential software pests but also reporting, project management, and access-control tools that are especially valuable when working on multiple projects.

QIM's basic bug-tracking capabilities include schedule management, attachment handling, automatic email alerts, role-based access control, and reporting tools. In addition, QIM supplies additional functionality in areas such as workflow resolution, rule management, time tracking, worklog management, and Active Directory authentication. It also offers strong cross-platform support for heterogeneous networks so that if someone records a script in Linux, it can be edited and replayed in Windows without having to recompile it.

Prasanna Balaraman, lead technical staff member of the QEngine Issue Manager team at AdventNet, says that QIM is targeted at organizations that have multiple accounts and departments, such as a hospital. The operations section of a large hospital may use different applications and so will have different responsibilities and concerns in regards to bug tracking than the department responsible for maintaining data accounts.

Moreover, QIM's issue management system provides for access-based controls that can discern a given employee's access to one project or several projects, as well as varying degrees of access to these projects. In a department of 120 people, an employee can

log in to QIM's easy-to-use Web interface and learn almost instantaneously what issues are fixed and which ones are still pending and can put together custom data reports that target different aspects of a given bug issue.

QEngine Issue Manager 4 is Web-based and works with Windows and Linux versions of Microsoft Internet Explorer, Firefox, and other Web browsers. It competes with several other products in the bug-tracking space, including open-source software bug-tracker Bugzilla (bugzilla.org), Seapine Software's TestTrack Pro (seapine.com), and Axosoft's OnTime 2006 (www.axosoft.com). □

SNAPSHOT

AdventNet QEngine Issue Manager 4

\$195 for configuring a five-user pack, which includes an annual subscription to version updates; a 30-day evaluation license is also available, as is a free small-business edition

Provides users with comprehensive bug detecting, tracking, and management capabilities, as well as flexible access-control and project-management capabilities

www.adventnet.com

COMPONENTS

OCTOBER 27, 2006

New Expansion Possibilities

Koutech Offers Range Of Products Based On Emerging Standard

EXPRESSCARD is the next generation in expansion slots for your notebook computer, and Koutech is proud to offer a wide range of I/O expansion solutions based on this emerging standard.

Koutech's new ExpressCard products let you take advantage of the high-speed performance offered by the new PCI Express technology, using the new ExpressCard slot on notebook computers from Dell, HP, Toshiba, and many other major manufacturers.

The ExpressCard technology was designed to improve upon the PC Card standard and provide high-performance, modular expansion for desktops and notebooks in



a smaller form factor than current PC Card products, according to the PCMCIA.

Koutech currently offers three versions of the new ExpressCard:

- The **1002E Dual Port FireWire/1394a ExpressCard** includes two 400Mbps 6-pin FireWire/1394a ports

6-pin FireWire/1394a ports on an ExpressCard/34 module.

- The **1615E Dual Port FireWire/1394b (FireWire 800) ExpressCard** includes two 800Mbps 9-pin FireWire/1394b ports on an ExpressCard/34 module.
- The **7004E FireWire/1394a & Hi-Speed USB 2.0 Combo ExpressCard** includes two 400Mbps 6-pin FireWire/1394a ports and a Hi-Speed USB 2.0 port, using the latest PCMCIA ExpressCard/34 interface.

ExpressCards come with a five-year warranty and work with Windows 2000/XP/Server 2003. They support PCI-E and USB technologies, providing simple connections for scanners, printers, external CD/DVD writers, hard drives, and RAID enclosures.

Koutech ExpressCards are based on the ExpressCard/34 module (34mm wide), so

they can fit into either a Universal or 34mm ExpressCard slot. If an ExpressCard/34 module is inserted into a Universal slot, the internal guidance feature gently directs the module over to engage the connectors.

Koutech ExpressCard 1002E, 1615E, and 7004E

Three versions offer up to 800Mbps transfer rates and ideal connections for external storage and hardware

(562) 699-5340

www.Processor.com/KoutechSys



Koutech Systems, Inc.

Product Releases

Continued from Page 16

Server

■ **Atipa Technologies** announced the Atipa X series servers built on quad-core Intel Xeon processor 5300 technology. The Atipa X series servers support up to 64GB memory in a 1U rackmount form factor.

.....

■ New System x servers from **IBM** come with quad-core Intel Xeon 5300 processors. With support for power management and virtualization (including third-party apps such as VMware), the new servers can reduce space and power consumption in the data center by running multiple applications that used to take several physical servers to run. Pricing starts at \$1,839.

Storage

■ **Intradyn** expanded its ComplianceVault Email Archiving & Retrieval Appliance eSeries family to include 1.5TB and 3.7TB models. The new arrivals are the e1500, which has a 1U footprint and 1.5TB of space, and the e3700, which has a 2U

footprint and 3.7TB of space. The appliances have hot-swappable SATA RAID 5 hard drives and dual power supplies. The units are based on the Intel S5000PAL platform. They support unlimited mailboxes and have software that lets them capture emails continuously. They save data to hard disks and tape via a bundled Sony AIT tape library. They support IMAP and POP3 email systems and multiple email servers. The appliances also have enhanced archiving, searching, and fetching features. The appliances let companies meet SEC, NASD, Sarbanes-Oxley, FDA 21 CFR Part 11, and HIPAA regulations. The e1500 is available for \$14,995, and the e3700 is available for \$29,995.

.....

■ **Kano** released NetCOR, a high-performance network-attached RAID storage appliance. NetCOR can be purchased with up to 3TB of SATA RAID disk storage, and it's based on the Intel X-Scale processor platform to provide high-performance network storage. NetCOR includes four hot-swappable SATA II hard drives that can be configured in four different modes.

.....

The client recovery tool allows PC client hard drives to be mirrored to the NetCOR system, and after a drive failure, you can use the mirrored drive to restore the hard disk.

.....

■ **Rackable Systems** has introduced the RapidScaleT SA3100 cluster file system storage appliance, which is designed for Linux environments. The SA3100 works well in HPC environments and provides global name space for better management tools, storage capabilities, and availability. The SA3100 offers more than 10GBps of I/O throughput and adds 8TB of storage and up to 200MBps of performance. RapidScale prices start at \$38,750.

SOFTWARE

Business Productivity

■ **Kofax** released Ascent Xtrata Pro, which works with Ascent Capture to extract data (and classify data) from documents. The software uses GUIs and simple drag-and-drop and point-and-click capabilities to help users quickly configure tasks. The

software also includes wizards for project building. The software manages both structured and unstructured content and creates actionable information from unstructured content.

Mobility

■ **Check Point Software Technologies** announced the availability of SecureClient Mobile, a mobile security solution that gives Windows Mobile device users secure, uninterrupted remote access to enterprise email and critical business applications. SecureClient Mobile maintains continuous and transparent VPN connectivity with Check Point VPN-1 and Connectra gateways when roaming across networks and eliminates the need for end users to reauthenticate. Features include location-independent network access, pre-defined security policies, the ability to allow or disallow mobile device synchronization with local PCs, automatic data delivery, and policy control through a single, unified management interface with over-the-air capability.

Go to Page 18

Control Unstructured Data

NTP Software Adds To Its Formidable QFS Arsenal

by Ed Tittel

• • •

ACQUIRING THE STORAGE necessary to handle corporate or organizational data wins only half the battle for asserting proper controls over key information assets. The other half of that battle must be fought on the data management front, and NTP Software offers a key component in assisting that effort as it offers platform-agnostic products designed to deliver user-focused, policy-based storage management.

In fact, various versions of its QFS products work on network-attached storage systems from Dell (www.dell.com), EMC (www.emc.com), HP (www.hp.com), and IBM (www.ibm.com), as well as Net-

work Appliance's FAS200, FAS900, and FAS3000 storage appliances (www.netapp.com). The company also supports Windows-specific RAID and SAN implementations for conventional 32-bit 80x86 processors, as well as for 64-bit processors from AMD (www.amd.com) and Intel (www.intel.com).

The core of the QFS product line is what NTP calls Universal User-based Management, which defines a standard mechanism for creating user-focused storage

management policies. The basic mechanism is platform-independent, which means a single quota policy can be applied to Windows servers, EMC SANs, and Network Appliance devices.

Policy mechanisms can filter or block files by extension yet make exceptions for certain user groups that require access to files of all types. Likewise, storage consumption limits may be set with hard ceilings or with warnings as thresholds are exceeded. Compliance and other retention requirements may be addressed with persistence attributes that enable administrators to establish how long files are retained and how many versions will be maintained.

The QFS family also supports a mix of centralized and distributed storage management, in that core administrators can establish and manage global storage, security, and access policies yet delegate management of specific volumes or devices to local administrators on a site- or department-level basis. Users get visual feedback about how their storage consumption and behaviors map to the policies that govern them, and

administrators can manage storage across a wide variety of platforms at the enterprise level, as well as for smaller containers through delegation.

Competition comes in two primary forms. First, enterprise storage hardware companies such as EMC (AutoIS, or Automated Information Storage), Brocade (Tapestry StorageX; www.brocade.com), and HP (Storage Essentials) recognize their hardware is likely to be part of a heterogeneous solution and design general-purpose storage management software to complement their storage platform offerings.

Second, independent software vendors such as Everstor (Replicator and Hiarc HSM; www.everstor.com), Portlock (Portlock Storage Manager; www.portlock.com), and BMC (MAINVIEW SRM and EMC ControlCenter; www.bmc.com) also offer packages that provide storage management and value-adds such as mirroring, replication, backup, and archiving. □

SNAPSHOT

NTP Software QFS for NAS Storage Firewall 3.2

Starts at \$6,995

Supports development and enforcement of storage management policies, including quotas, usage, access controls, rights delegation, file screening, and compliance controls

www.ntpssoftware.com

The core of the QFS product line is what NTP calls Universal User-based Management, which defines a standard mechanism for creating user-focused storage management policies.



Call for a Quote Today!
 • Quick Shipping
 • In-house Technical Staff
 • International Shipping

Phone 800-447-1156
 617-547-4005
 Fax 617-354-1417
 E-mail sales@eli.com

288 Norfolk Street
 Cambridge, MA 02139

For our complete
 online catalog
 go to www.eli.com

SUN MICROSYSTEMS

Sun Fire
 Sun Blade
 StorEdge
 3310/3510 Array
 Spars
 CPUs
 Drives
 Memory
 Entry/Midrange Servers

DEC/HP

Alpha
 DecServers
 Comm. Gear
 VAX
 Memory/Disks

CISCO

Routers
 Catalyst Series Switches
 Network Modules
 Pix Firewalls
 Port Adapters
 VPN+ Security Product



In July 2006,
NETAPP will
 no longer support
 F720 and F760
 Filers!



Processor Special
 F840 w/ NFS SW--
\$14,500 per head
*Buy two heads and get
 Cluster SW licenses FREE!*

WWW.ZEROWAIT.COM
Toll-Free: 888.811.0808

\$\$ CASH \$\$

media recovery
 Datacenter products and services

WANTED!

Magnetic Tape Media:
9940 • 9840 • 3590 • LTO • SDLT

Please Contact
 Al Bass
 214-905-1882

abassignani@mediarecovery.com



Visit our new web site at: www.mediarecovery.com

\$\$ CASH \$\$

\$\$ CASH \$\$

NodalCore® C-2000 Multi-Gigabit Content Security Accelerators

Next-generation UTM acceleration

The NodalCore C-2000 comes with the SAA UTM software framework, which provides full access to an extensive ecosystem of commercial and open-source network & security applications, such as Antivirus, Antispam, Antispyware, IDS/IPS, Content Filtering and QoS. This suite of best-of-breed applications enables developers to rapidly bundle, integrate and deploy a wide range of security solutions. Special C-2000 and application pricing bundles are available. For a complete list go to:

www.sensorynetworks.com/Ecosystem/

The C-2000 next-generation product range provides content security acceleration solutions from 100Mbps to 10 Gbps. SAA also provides multicard support.



Entry level card for SME appliances rated from 100 Mbps - 1 Gbps.



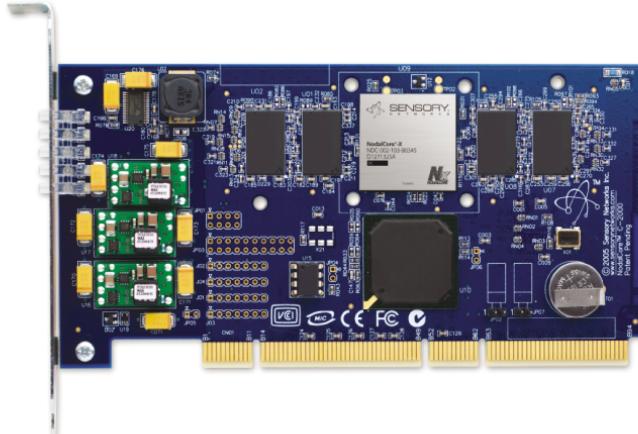
Mid-range card for appliances rated from 1 Gbps - 2 Gbps.



High-performance card for enterprise appliances rated from 2 Gbps - 4 Gbps.

Scalable architecture provides security appliance vendors with a wide range of performance price points.

For More Information: www.Processor.com/SensoryNetworks4



2595 East Bayshore Road, Suite 200
Palo Alto, CA, 94301
Phone: (650) 292 4636
Fax: (650) 618 2769
sales@sensorynetworks.com



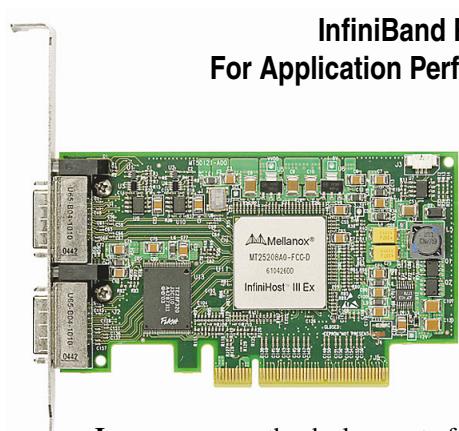
SENSORY.
NETWORKS

COMPONENTS

JULY 21, 2006

InfiniHost III Ex Dual-Port InfiniBand HCA Cards With PCI Express x8

InfiniBand Raises The Bar For Application Performance & Deployment



IN ADDITION TO the deployment of 20Gbps InfiniBand in multicore server platforms, blade server platforms are driving connectivity performance into mainstream data center and high-performance computing environments. The growing number of InfiniBand 20Gbps technology-based suppliers is heralding a new generation of cluster and grid deployments where the bar for application performance and resource deployment flexibility is being raised to unprecedented levels.

InfiniHost III Ex dual-port 4X InfiniBand Host Channel Adapter cards connect to the host system through a PCI Express x8 interface; single data rate InfiniHost III Ex cards support dual 10Gbps InfiniBand connections; and double data rate versions support dual 20Gbps InfiniBand connections. InfiniHost III Ex HCA cards are the most cost-effective 10 or 20Gbps solutions available and feature RDMA, hardware transport, and advanced per queue pair QoS.

- Dual 10Gbps (MHEA28-XTC and MHEA28-1TC) or 20Gbps (MHGA28-XTC and MHGA28-1TC) 4X InfiniBand Ports
- Integrated SerDes (Serializer/Deserializer) interfaces
- PCI Express revision 1.0a compatible
- PCI Express x8 (20 + 20Gbps full duplex) interface
- IBTA version 1.2 compatible
- Copper InfiniBand connectors (MicroGigaCN) with media detect circuit for optional fiber media adapter
- Linux management and applications package available
- Linux and Windows drivers
- InfiniBand Compatible Verbs API
- Various upper layer protocols
- ROHS-R5 Compliant

Mellanox InfiniHost III Ex

Cost-effective 10 or 20Gbps cards featuring RDMA and hardware transport

(408) 970-3400

www.Processor.com/InfiniHostEx



Product Releases

Continued from Page 17

Network & Systems Management

■ **AdventNet** released version 5.0 of its ManageEngine WiFi Manager software, which supports wireless switches and thin/dumb access points. The latest version lets enterprises monitor, configure, secure, and manage heterogeneous networks with fat, standalone access points and wireless switches from one console. The software supports hardware from Cisco, Symbol, D-Link, Netgear, and other major manufacturers, with more than 80 models of fat access points supported. WiFi Manager is now available for download in Windows and Linux versions: The free version, which covers three access points, never expires; a trial edition for unlimited devices lasts 30 days; and the Pro Edition software starts at \$495 for 10 access points. A Wireless Switch add-on is also available for \$1,995.

....

■ **Borland Software** released the latest versions of its software for automating and improving software change management, Borland StarTeam and Borland CaliberRM 2006. StarTeam boasts better integration with such IDEs as Eclipse, Delphi, JBuilder, and Visual Studio; supports Windows, Solaris, and Linux; and has better compare/merge functionality so users can coordinate work between branches. CaliberRM has enhancements for faster decision making and a traceability matrix that lets users take advantage of a variety of criteria, including ownership, creation or modification dates, status, and priority.

....

■ **Opsware** announced Opsware Virtualization Director, designed to manage the life cycle of both physical and virtual servers from provisioning and patching to compliance and configuration, as well as through heterogeneous virtual systems deployed in multiple data centers. Automated capabilities provide control over virtual servers to discover, visualize, and track dependencies between virtual and physical infrastructure elements. Opsware Virtualization Director features the ability to create and delete virtual servers and is capable of tracking

....

relationships between virtual machines and their hosts.

Physical Infrastructure

■ **Aperture Technologies** launched Vista 500, a data center infrastructure resource management system that aims to give IT execs and managers control over space, power, and cooling, as well as configuration management complexities. Vista 500 includes Advanced Power Management and Device Support, enhanced support for blade servers, enhanced connectivity, improved operational management reporting, service-level escalations for infrastructure processes, an equipment request catalog, and more.

Security

■ **AirTight Networks** announced that two of its security software packages, SpectraGuard Enterprise and SpectraGuard SAFE, are now NIAP/Common Criteria certified. SpectraGuard SAFE handles protection for notebooks when federal employees travel. SpectraGuard Enterprise detects and classifies threats, prevents wireless threats, and can place wireless threats on a floor map so users can identify and remove the threats.

....

■ **CA** has announced that it will release numerous risk mitigation and compliance features in the form of centralized information, recovery, and resource management products to enhance the built-in abilities of Microsoft's Exchange Server 2007. CA's offerings will let users optimize data protection, email archiving, compliance, and electronic data discovery across Exchange Server. Specifically, CA's solutions will include MDY FileSurf, Message Manager, BrightStor ARCserve Backup, XoSoft, and BrightStor Storage Resource Manager.

....

■ **Check Point Software Technologies** announced Check Point VPN-1 UTM Edge 7.0, an upgrade to its branch office software. VPN-1 UTM Edge is a unified threat management appliance that integrates a stateful inspection firewall, industrial-strength intrusion prevention, gateway antivirus, and IPsec VPN into a single solution. VPN-1 UTM Edge also provides ADSL and WLAN protocols to provide

Blade-Based Rackmount Appliances

Overland ULTAMUS RAID Offers Storage For SANs

by Daniel P. Dern

....

COMPANIES HAVE NEED for multiterabyte, reliable, affordable primary and bulk SAN disk storage, and Overland Storage's new ULTAMUS RAID 5200 can hold up to 52 SATA drives in a single 4U chassis for a capacity, using 500GB drives, of up to 26TB. "And we're qualifying 750GB drives right now," says Robert Farkaly, director of product management at Overland. The ULTAMUS 1200 (available later) will house up to 12 SATA drives in a 2U rack-mountable enclosure, for up to 6TB of capacity.

Overland sees its ULTAMUS RAID storage as a robust, affordable alternative to costly, high-end SANs as well as direct-attached and internal server-based storage. According to Farkaly, ULTAMUS RAID products can be used as DAS (direct-attached storage) with Fibre Channel, as a replacement for SCSI DAS, and for SANs.

"A lot of companies need bulk storage—terabytes—e.g., for images, email, and video, and want something that's economical and reliable," says Farkaly. "We see ULTAMUS RAID being used in smaller companies comfortable with this approach

Product Releases

enterprises with the most flexibility and manageability during deployment. New features in v7.0 include USB Modem Support for analog, ISDN, and GPRS/EVDO cellular modems; wireless roaming; and Bridge Mode, which allows administrators to add a security layer to an existing network without requiring the time or expense of changing existing IP configuration.

■ **ElcomSoft** introduced the latest iterations of three of its password recovery software offerings: Advanced ACT Password Recovery, Advanced Instant Messengers Password Recovery, and Advanced WordPerfect Office Password Recovery. Version 2.20 of Advanced ACT Password Recovery software, which lets users recover or replace lost passwords in Symantec and Best Software's ACT! contact management software, works with password-protected BLB, MUD, and ADF files and enables users to change security roles in ACT! 2005 and 2006 databases. ElcomSoft offers a Personal License for \$30 and a Business License for \$60.

Version 3.20 of Advanced Instant Messengers Password Recovery software, which enables users to recover local login usernames and passwords for common instant messaging applications, supports ICQ, ICQLite, AOL Instant Messenger, AIM Pro, Yahoo! Messenger, Excite Messenger, MSN Messenger, Windows Live Messenger, Microsoft Office Communicator 2005, Google Talk, and dozens more and is also capable of recovering multilingual passwords. A trial version is available for download.

Finally, Version 1.23 of Advanced WordPerfect Office Password Recovery software, designed to recover lost passwords to protected Corel WordPerfect Office documents, now supports WordPerfect, Quattro-Pro, and Paradox files, as well as multilingual password recovery. ElcomSoft offers a Personal License for \$49 and a Business License for \$99.

■ **Juniper Networks** launched UAC (Unified Access Control) 2.0 for managing user access to business assets from network endpoints. UAC 2.0 enforces real-time policy management by combining user identity,

endpoint integrity, and location information with access controls. UAC 2.0 is an open standards-based Layer 2 and Layer 3 access control that provides real-time visibility and granular policy control throughout the network. The software supports both the IEEE 802.1X standard and Trusted Computing Group's TNC (Trusted Network Connect). Customers can secure access to applications and resources through Juniper's firewalls, any 802.1X-enabled switch, or wireless access point.

Storage

■ **DataCore** announced its SANmelody software, designed to meet the business continuity and disaster recovery needs of medium-sized and large businesses. The new offering supports both Fibre Channel and iSCSI networks, as well as VMware ESX environments. DataCore also launched the entry-level Virtualization Infrastructure Foundation, which includes data migration services and thin-provisioning capabilities that can be used on Ethernet networks.

■ **EMC** announced Rainfinity Global File Virtualization 7.0, a scaleable, out-of-band platform for enterprise archiving and CAS (content addressed storage). Version 7.0 includes support for archiving from heterogeneous file- and network-attached storage to the EMC Centera CAS platform. Rainfinity Global File Virtualization provides a platform to manage both active and inactive files throughout a file's life cycle and includes seven storage management applications.

■ **Softek** announced TDMF (Transparent Data Migration Facility) z/OS v4.1, which includes tools for local and remote data migration, as well as data replication. New features include optional Functionality-on-Demand modules for offline volume access, point-in-time copies, and TCP/IP-based data replication. The optional modules include OVA, PIT and PPIT, TCP/IP Support, Flexible Pacing, Full Speed Copy, Active-In-Copy, and Session Assistant. Also included is improved support for storage arrays through HDS TrueCopy, which offers bidirectional migration between IBM PPRC and HDS TrueCopy paired volumes.

to storage and larger companies needing bulk storage. We expect initial customers will be buying ULTAMUS for video, scientific, Web serving, simulations, and

SNAPSHOT

Overland Storage ULTAMUS RAID 5200

Starts at \$36,000, including 13 500GB SATA drives

Provides cost-effective, expandable multiterabyte rackmount SATA storage for SAN applications

www.overlandstorage.com

other applications that may not be mission-critical."

Features of Overland's ULTAMUS RAID line include SAS, allowing multiple 4Gb Fibre Channel connections; Overland's DriveAlive technology, for expedited RAID rebuilds; and dynamic capacity expansion, with hot-swappable components and cableless design. The ULTAMUS supports standard RAID levels including RAID 6, which

allows up to two drives in a RAID group to fail without data loss.

Tony Asaro, senior analyst at Enterprise Strategy Group (www.enterprisestrategygroup.com), sees Overland's strategy as being the most important aspect of the ULTAMUS announcement. "With the addition of their ULTAMUS RAID products to their tape and virtual tape library disk storage products, Overland can now provide an ecosystem of tiered data protection from a trusted source, for managing and storing data throughout its life cycle, including primary storage for entry-level and midrange requirements."

According to Overland's Farkaly, the short list of competitors for the ULTAMUS RAID product line includes RAID offerings from Nexsan Technologies (www.nexsan.com) and Xyratex Technology Limited (www.xratex.com), as well as HP's StorageWorks 500, 1000, and 1500 Modular Smart Array devices (www.hp.com). "We're targeting companies who buy from VARs," says Farkaly. □

Overland sees its ULTAMUS RAID storage as a robust, affordable alternative to costly, high-end SANs as well as direct-attached and internal server-based storage.

ACCESS ARCHIVED DATA IN THE BLINK OF AN EYE

PowerFile®
ACTIVATE YOUR ARCHIVES

REDUCE BACKUP TIME | FREE UP PRIMARY STORAGE | DATA SAFE FOR GENERATIONS



Introducing the Active Archive Appliance™ A Complete Network Attached Archive Solution from PowerFile



Systems Start at \$15,900 (MSRP)
(scale as needed)

call (866) 838-3669 or visit www.powerfile.com for more information.

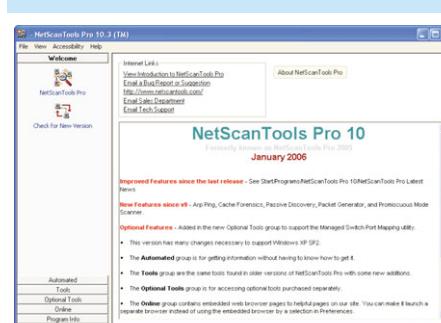
©2006 PowerFile, Inc. PowerFile, the PowerFile logo, Active Archive Appliance, the A3 logo, Permanent Storage Appliance, and the PSA logo are trademarks or registered trademarks of PowerFile Inc. in the U.S.A. and other countries. All other trademarks are the property of their respective companies. Information is subject to change without notice.

Northwest Performance Software, Inc. A Leading provider of Network Information and Security Utilities

NetScanTools Pro

Multiple Solutions in One Package

- Network Information Gathering: Reconnaissance and Discovery
- Security Testing: Uses active and passive means to look for networked devices, exposed open ports, and network activity
- Training: Assists students in understanding various network protocols, methods of remote information gathering, and how networked devices expose information

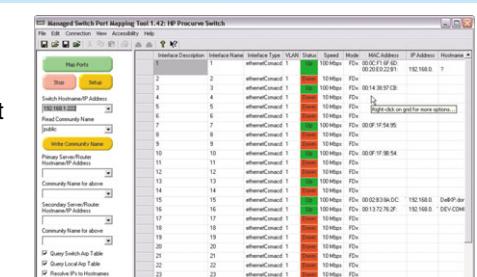


www.Processor.com/NWPSW

Managed Switch Port Mapping Tool

Maps devices connected to ports of a managed network switch

- Communicates with a managed ethernet switch via SNMPv1/v2c and maps the physical port connections to MAC addresses.
- Queries several SNMP enabled devices to map the MAC addresses to IP addresses

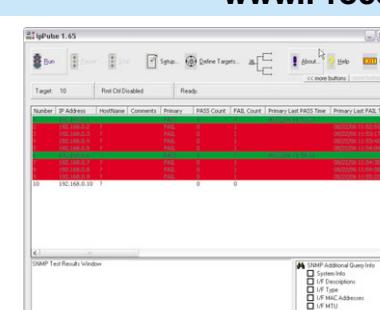


www.Processor.com/NWPSW2

ipPulse

Monitors connectivity between your computer and a set of target computers

- ipPulse alerts you to failures using a variety of techniques ranging from audible messages to email and pager notification
- You can control ipPulse remotely by logging into Remote Control using any Telnet application
- ipPulse is designed to run unattended on a single workstation



www.Processor.com/NWPSW3

Free Demo's Available!
For More Information Call
(866) 882-3389

**NorthWest
Performance
Software, Inc.**

Keeping It Quiet Without Breaking The Bank

GizMac 25U Rolling Rack Enclosure Deadens Noise, Increases Deployment Options

by Joseph Pasquini

FOR SMALL TO MEDIUM-SIZED enterprises, the concept of a full-fledged data center is often replaced with the harsh realities associated with limited and sometimes even nonexistent facility space. Whether in a storage room, utility closet, or even in a hallway or desk just one cubicle over, hardware installed in these confines is

often disruptive to the workplace and generally harmful to the equipment. Physical security is also a concern. Rack mounting the devices helps to a degree, but the accompanying noise level of the racked servers and other components can still be exasperating. If this describes what ails your office, then GizMac's 25U XRack-Pro2 enclosure might just be what the doctor ordered.

All external panels are lined with specially engineered acoustical foam, and both the front and rear doors are sealed and lockable.

Processor.com

Weighing just less than 270 pounds, the GizMac 25U XRackPro2 server rackmount cabinet allows computer, audio/video, medical, and other similar equipment to be located in traditionally low-noise surroundings. "The XRackPro 12U noise reduction rack has been in existence for over four years and has gone through a couple revisions to improve noise reduction and cooling. The 25U incorporates the newest design, which even further reduces noise and improves cooling," says Ken Vitto, director of marketing for GizMac Accessories.

Measuring in at more than double the capacity of its previously largest model, GizMac's 25U XRackPro2 offers 19-inch (48.2cm) Standard EIA/NEMA rails, four fully adjustable mounting rails with U-position labels, a user-customizable air intake system, and a built-in cable management system. All external panels are lined with specially engineered acoustical foam, and both the front and rear doors are sealed as well as lockable. The XRackPro2 also offers carpet-safe caster rollers for rapid mobility when necessary. The industrial-strength locking rear casters can be unlocked should relocation of the enclosure ever be required. 24 cage nuts and screws are included for an initial hardware installation. Optional accessories include filler plates and an equipment isolation mat.

GizMac's Vitto notes that the 25U's equipment depth of 32 inches is an additional advantage to some buyers. "Because of the XRack's superior depth, we find that many customers will buy the XRackPro not only

for noise reduction, but sometimes customers will buy the XRack because they need a server rack that is deeper than what they have seen on the market, and the noise reduction is a nice added benefit," says Vitto.

Only a select few rack manufacturers—such as the Noren Products' 24U Acousti-Lock ACL24TD (www.norenproducts.com) and the slightly larger Keyzone Whisper 27U enclosure (www.keyzone.com)—cater to the sound dampening market segment. Unlike these two, however, the 25U XRackPro2's clear front door lets equipment remain visible without opening up the cabinet. □



SNAPSHOT

GizMac 25U XRackPro2

\$2,199.99 for 120V model; \$2,418.99 for 220V model
Second-generation XRackPro2 enclosure cabinet offers 25U of sound dampening rackmount space

www.Processor.com/GizMac

All-In-One Backup, Recovery & Archival

Alliance Between Hardware & Software Companies Delivers Unique Medical Solution

by Paul Ferrill Jr.

FEDERAL REGULATIONS have changed the way most every medical practice handles its records. While the pain was most acute in the small doctor's office, it has also made a significant impact at the largest hospitals and health centers. Computers and software offer some relief, but many facilities still file records manually. Some have a mixed bag of electronic and manual, particularly when it comes to things such as X-rays and other diagnostic media.

HIPAA makes no distinction between electronic records or paper. All patient information must be protected regardless of where it resides. It even includes such

things as recorded conversations or doctor dictation. Keeping track of the electronic information especially after it has been archived or moved offsite is another aspect covered by the regulations.

Automation is without a doubt the best way to ensure compliance. UltraRAD's UltraARCHIVE product provides the software component necessary to meet the regulatory requirements. It has coupled its software with Breeze Hill's disk-to-disk-to-tape iStoRA product, providing a complete solution. UltraARCHIVE makes it possible to directly archive medical images from all the leading equipment vendors.



SNAPSHOT

Breeze Hill & UltraRAD Backup Appliance

The combination of Breeze Hill's iStoRA hardware and UltraRAD's UltraARCHIVE software delivers a cost-effective solution for storing multimedia medical information and meeting all the requirements of HIPAA

www.breechill.com
www.ultraradcorp.com

The iStoRA product uses cost-effective SATA disk drives to deliver fast and economical storage. Behind the disk system is a high-capacity LTO 3 tape archive system capable of backing up all data using multiple tapes. iStoRA combines the speed of network-attached storage with the archival quality of tape to meet multiple needs. The iStoRA G3S and G3X models offer from 2 to 3.2TB of online disk storage and up to 4TB of tape.

One advantage of the UltraARCHIVE software is its ability to manage the storage at a very granular level. This makes it possible to bill for different levels of service all the way from the individual procedure up to a per-terabyte-of-storage basis.

Some of the imaging vendors in the industry do provide an add-on service to their equipment that enables offline storage and archival. In most cases, these options are specific to the vendor's equipment and typically cost significantly more than other solutions. UltraARCHIVE is unique in its ability to connect with different imaging systems. □

www.ccny.com



Computer Connection of Central New York, Inc.

For all your IT Network & Security Needs

BUYS / SELLS / TRADE-IN / SERVICE / NEW / USED

800-566-4786

purchasing@ccny.com sales@ccny.com

EQUIPMENT MANAGEMENT, INC

Phone: (978) 534-2074
Fax: (978) 534-5574
Email: rob@emisolutions.com rico@emisolutions.com
WEB: www.emisolutions.com
42 Jungle Road, Leominster MA 01453

***** SWITCH SPECIALS *****

401930-001 Motherboard Switch \$1795	A7537A \$12900 HP STRKS SWITCH 4/32	254136-001 \$5900 San Director
311242-001 \$12500 San Switch	283056-B21 \$3500 SAN switch 2/16	287055-B21 \$5900 SAN Switch 2/16
A7537A \$13900 HP STRKS SAN Switch 4/32	A4688A \$5900 HP Surestore E Bridge FC 4/1	311026-B21 \$17500 SAN Switch Power Pack
<ul style="list-style-type: none"> • Immediate Availability • Lowest Prices • Blind Shipment 		
TERMINALS • MEMORY • PRINTERS • DRIVES • PERIPHERALS • CPU'S • CONTROLLERS and MORE		
  A minority owned business		

BUY, SELL, TRADE ALL BRANDS.....!

NCR Systems, Parts and Upgrade Specialists



WE BUY AND SELL

 **OKI PRINTRONIX**




VECMAR Computer Solutions www.vecmar.com

New and Refurbished Okidata and Tally-Genicom business printers



New and Refurbished Wyse Winterm Thin Clients

TOLL-FREE 800-457-8499



Introducing AIS Cost Effective 1U RackMount KVM Console LCD Monitors

The AIS 1U RackMount KVM Console LCD Monitors come in 15", 17" and 19" sizes and feature an optional 8-port console switch; the single unit comes with 8 ports, an LCD flat monitor, keyboard, and touchpad, all integrated in a slide-out drawer. The 1U RackMount KVM Console LCD Monitors are designed for and fit perfectly into data centers, ASPs, ISPs, telecommunications, and testing rooms.

Starting at \$999

Benefits and Advantages

- Industrial grade-A LCD TFT active-matrix color panel .
- On-Screen Display allows for easy adjustment of color, brightness, contrast, position, and shape of the display .
- Front panel controls for quick adjustments .
- Standard D-sub 15-pin VGA input connector.
- Space saving design - ultra-low 1U (1.75") flip-up display enclosure .
- Unique mechanical design to maximize rack mountable space .
- Comes with sliding rail and mounting kit for easy integration into any 19" cabinet.

- EMI shielding around the monitor housing to minimize interference.
- Integrated 88-key keyboard and touch pad.
- Integrated 17-key numerical key pad.
- Keyboard and mouse that meets military standard for shock and vibration.
- Built with smart cable management design
- Adjustable hinges for display.
- Install quickly and easily with plug and play system configuration .
- Supports AT/XT, PS/2, UNIX, Sun, and Macintosh computers.



Model	15	15	17	17	19	19
Size of panel	LDS210D	LDS210D-8P	LDS310D	LDS310D-8P	LDS410D	LDS410D-8P
KVM	15"	15"	17"	17"	17"	17"
Display Area (mm)	304.1 (H) x 228.1 (V) (15.0-inch diagonal)	304.1 (H) x 228.1 (V) (15.0-inch diagonal)	337.92 (H) x 228.1 (V) (17.0-inch diagonal)	337.92 (H) x 228.1 (V) (17.0-inch diagonal)	376.3 (H) x 301.1 (V) (19.0-inch diagonal)	376.3 (H) x 301.1 (V) (19.0-inch diagonal)
Pixel Pitch	0.297 (H) x 0.297 (V)	0.297 (H) x 0.297 (V)	0.264 (H) x 0.264 (V)	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (V)	0.294 (H) x 0.294 (V)
Number of Pixels	1024 (H) X768 (V)	1024 (H) X768 (V)	1280 (H) X1024 (V)	1280 (H) X1024 (V)	1280 (H) X1024 (V)	1280 (H) X1024 (V)
Contrast Ratio	500:1	500:1	400:1	400:1	600:1	600:1
Display Color	16.2M(6bits+FRC)	16.2M(6bits+FRC)	16.7M(8bits/colors)	16.7M(8bits/colors)	16.7M(8bits/colors)	16.7M(8bits/colors)
Brightness (cd/m ²)	250 (Typ.)	250 (Typ.)	280 (Typ.)	280 (Typ.)	250 (Typ.)	250 (Typ.)
Input Signal	RGB Analog	RGB Analog	RGB Analog	RGB Analog	4 replaceable CCFLs edge-light(top/Bottom)	4 replaceable CCFLs edge-light(top/Bottom)
Viewing Angle	- 65° ~ 65° , - 55° ~ 65°	- 65° ~ 65° , - 55° ~ 65°	-70° ~ 70° , - 60° ~ 60°	-70° ~ 70° , - 60° ~ 60°	- 85° ~ 85° , - 85° ~ 85°	- 85° ~ 85° , - 85° ~ 85°
I/O	Power: 12DV adapter Keyboard: PS/2 Mouse: PS/2 VGA: 15-pin D-Sub					
Keyboard and Key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad	88-key keyboard and integrated Touch Pad 17-key numerical key pad
Power Consumption	33 Watts	33 Watts	38 Watts	38 Watts	44 Watts	44 Watts
Power Supply	AC 100-240V Universal					
Hot Key Control	OSD Hot Key					
Temperature	0°C ~50°C in operating; -20°C ~60°C in storage					
Humidity	10-85% in operating; 10-90% in storage					
Size	515mm (D) x484mm (W) x44mm (H)					



1-(800) 200-0274



1-(800) 332-8638



1-(800) 340-1001

1-888-485-6688

<http://www.aispro.com>



MORE PRODUCTS, BETTER SERVICE, GUARANTEED.

GO STRAIGHT TO THE SOURCE!

FOCUS ON WHAT MATTERS MOST

GET DUAL-CORE INTEL XEON PROCESSORS IN SERVERSDIRECT SYSTEMS AND CONCERNTRATE ON BUSINESS OPPORTUNITIES
INSTEAD OF SERVER HEADACHES



STARTING PRICE
\$2,499

SDR-3500T 3U 64-BIT XEON DATABASE SERVER

Designed to provide outstanding performance with dual-core Xeon® 5000/5100, ideal solution for storage and mission critical business application server

FEATURE HIGHLIGHTS:

- Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
- 3U Chassis with 800W Redundant Power Supply
- Intel® 5000P (Blackford) Chipset
- Kingston 1024MB 667MHz DDR2 ECC FB-DIMM(2pcs x 512MB)
- Seagate 400GB SATA-II 16MB Cache 7200RPM

- 16 x 1" Hot-swap SATA Drive Bays
- ATI ES1000 Graphics with 16MB video memory
- Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
- RAID 0, 1, 5, 10 Support

1U ENTRY LEVEL SERVER

1U Pentium® D servers support the latest dual-core architecture that delivers unmatched multi-tasking capabilities in an uni-processor environment



\$999

- 1U Rackmount Chassis with 300W Power Supply
- Intel® Pentium® D 930 3.0GHZ Dual Core 800FSB
- Intel® E7230 (Mukilteo) Chipset
- Kingston 1024MB 667MHz DDR2 ECC (2pcs x 512MB)
- Seagate 250GB SATA-II 7200RPM hard drive
- 2 x 1" Hot-swap SATA Drive Bays
- ATI RageXL graphics, 8MB
- 2x Intel® 82573V (Tekoa) PCI-e Gigabit LAN Ports
- RAID 0, 1

SKU# SDR-1110T

4U TOWER/RACKMOUNT 64-BIT XEON ENTERPRISE SERVER

Powered by the latest dual-core Xeon 5000/5100® sequence processors, versatility in either a tower or rackmount 4U form factor and support enterprise-class



\$3,999

- Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
- 4U Rackmountable / Tower
- Intel® 5000X (Greencreek) Chipset
- Kingston 1024MB 667MHz DDR2 ECC FB-DIMM (2pcs x 512MB)
- 8pcs x Seagate 400GB SATA-II 16MB Cache 7200RPM
- 3Ware 9550SX-8port RAID Controller Card
- GeForce 6200 TC 128MB OB 256M support DDRTV-out PCI-E
- Intel® (ESB2/Gilgal) 82563 Dual-port Gigabit Ethernet Controller

SKU# SDP-7045A-TB

COST EFFECTIVE 2U SERVER

Businesses with 50 or more employees seeking maximum performance, storage room, expandability and uptime



\$1,599

- Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
- 2U Chassis with 600W Power Supply
- Intel® 5000V (Blackford VS) Chipset
- Kingston 1024MB 667MHz DDR2 ECC FB-DIMM (2pcs x 512MB)
- Seagate 400GB SATA-II 16MB Cache 7200RPM
- 6 x 1" Hot-swap SATA-II Drive Bays
- ATI ES1000 Graphics with 16MB video memory
- Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
- RAID 0, 1, 5, 10 support

SKU# SDR-2501T

SDR-5500T 5U ADVANCED STORAGE SERVER

Powered by the latest dual-core Xeon 5000/5100® sequence processors, the absolute best storage capacity available in a 5U format



\$6,799

- Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
- 5U Chassis with 24 hot-swap bays & 950W redundant power supply
- Intel® 5000P (Blackford) Chipset
- Kingston 1024MB 667MHz DDR2 ECC FB-DIMM (2pcs x 512MB)
- 12pcs x Western Digital 400GB SATA RAID Drive
- 1pc x 3Ware 9550SX-12 port RAID Controller Card
- ATI ES1000 Graphics with 16MB video memory
- Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
- RAID 0, 1, 5, 10 support

SKU# SDR-5500T

SERVERS DIRECT CAN HELP YOU CONFIGURE YOUR NEXT HIGH PERFORMANCE SERVER SYSTEM - CALL US TODAY!

Our flexible on-line products configurator allows you to source a custom solution, or call and our product experts are standing by to help you assemble systems that require a little extra. Servers Direct - your direct source for scalable, cost effective server solutions.

1.877.727.7887 | www.serversdirect.com

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, Pentium, and Pentium III Xeon are trademarks of Intel Corporation or its subsidiaries in the United States and other countries.



Xeon®
inside™



888.644.7017

Home | My Account | Sign Out | View Cart

User: Guest | Items: 0, Total: \$0.00

[All Products](#) [Notebooks, PDAs](#) [Networking](#) [Printers](#) [Electronics](#) [Cameras](#) [Computers](#) [Software](#) [Weekly Specials](#) [Clearance](#) [Product Request](#) [Extended Warranty](#)
With 10 Years of Experience in the E-Commerce Market, We Offer:

- 50,000 unique products ready to ship today
- 120 unique categories of computer and consumer electronic products
- 97% "same day" order fulfillment rate
- Fast and reliable return and exchange process
- Same Day Processing time for Government and Educational Orders
- International Shipping
- Wholesale price discounts
- Largest selection of hard-to-find and obsolete products
- Telephone sales and tech support

Corporate, Gov't & Educational PO's Welcomed.
GSA Contract GS-35F-0097M
MONITORS / PROJECTORS

15 / 17" Hitachi LCD Monitor Black \$150 / 170
 17" HP / Compaq 1740 LCD Monitor Black \$195
 17" Sharp LCD 1280x1024 0.26mm Black / White \$161
 3M Company LCD Projector 1200ANSI 5.5LB's \$680
 HP Digital Projector VP6121 DLP 1024x768 2000ANSI \$665
 HP Digital Projector xp8020 DLP 3100 ANSI Lum \$1940
 HP Home Cinema Digital Projector ep7110 DLP Projector L1688A \$710

NOTEBOOKS

HP Pavilion dv1000 P-M
 2.0GHz 512mb 100gb DVDRW 14" \$859
 HP Pavilion zd7000
 P4 3.2GHz 512mb 100gb DVD+RW 17" \$1,450
 HPnc8200 PM
 1.7GHz 40gb 512mb DVD-CDRW WLAN 15.4WXGA XP \$655
 HPnc6000 P-M
 1.7GHz 60gb DVD+RW 14" XP \$750
 HP Presario V2405 Turion 1.8GHz 60gb DVD+RW 14" \$655

**We Have a Large Selection of Notebooks
 Low Price Guaranteed!**
SYSTEMS / SERVERS

IBM eServer 326 8848 Rack Opteron
 2GHz 1GB SCSI Hot-Swap 1U \$859
 IBM xSeries 445
 RSAII-EXA 8870 Rack Xeon 3GHz (2P) 2GB \$6000
 HP ProLiant ML350 G4
 Tower 1 x Xeon 3.4GHz RAM 1GB \$980
 HP WS xw4300
 3.2GHz 512MB 80GB DVDRW \$1000

DIGITAL CAMERAS

HP PhotoSmart 735XI 3.0MP 3x optical \$74
 Sony Cyber-shot 5.1 MP 3x Optical DSC-W5 \$198
 Vivitar Vivicam 10 / Vivicam 20 silver/blue/Red \$10/11
 Vivitar Vivicam 3915 Digital Camera 5.0MP x2 \$71
 Samsung Digimax 4500 4.1MP 3x Optical \$111
 Vivitar Vivicam 3340 1.3MP/Vivicam 3695 2.0MP \$16/25
 Creative PC-Cam 900 2.1 MP Flash \$35
 Logitech QuickCam WebCam w/ Mic USB \$17

PDAs / PDA Accessories

HP iPAQ H1945/HX2410 PDA USB \$265/160
 PALM Zire 31 PDA / P80708US \$26
 HP Mirco Keyboard / FA162A#AC3 \$16
 TARGUS Universal WI-FI Keyboard \$38

**We handle full line of new
 and refurbished CISCO
 networking equipment.**

WRCA.NET
800-699-9722

www.wrca.net

Worldwide Provider of Network Hardware since 1981

Selection sets us apart!
Call us today for YOUR solutions!

3COM
ADC
Adtran
IBM
Cisco
Bay Networks
BAT Electronics
Verilink
SynOptics
Multitech
Micom
Motorola UDS Codex
Commonworks US Robotics
Larscom
Packeteer
Paradyne
Patton
Racal
RAD
Carrier Access
NBaSe Xplex
Hull Speed
Digital Link
General DataComm

HARD DRIVES - IDE & SCSI

IDE Hard Drives
 1 - 30gb IDE \$ Check Web
 40 / 80gb IDE 5400/7200RPM \$30 / 47
 120 / 160gb IDE 5400/7200RPM \$57 / 67
 180 / 250gb IDE 7200RPM \$85 / 181
SCSI Hard Drives
 18-36gb U160 10K SCSI 80pin / 68pin / FC \$36 / 69
 18-36gb U320 15K SCSI 80pin / 68pin / FC \$57 / 83
 73-146gb U160/U320 10K SCSI 68pin, 80pin / FC \$129 / 177
 73-146gb U320 15K SCSI 68pin, 80pin / FC \$179 / 579
 ST336607FC / ST3146807LC / MAU3147NP \$79/239/567
 300GB U320 10K SCSI80pin / 68pin \$503/769
Notebook HDDs
 HDD under 20gb Check Web
 20-60gb 2.5" Toshiba / Fujitsu / Hitachi / WD \$40 / 57
 80-120gb 2.5" Toshiba / Fujitsu / Hitachi / WD \$83/129
 40-120gb 2.5" SATA Hitachi / Seagate / Fujitsu \$66/195
 20-60gb 1.8" ZIF / PCMCIA Toshiba / Hitachi \$59/169

Visit Our Web Site For Complete Selection of Hard Drives!

TAPE DRIVES

EXABYTE / QUANTUM / IBM
 EXB-8900 Tape Drive 8mm Tape 20GB/40GB Int SCSI \$375
 35/70GB Quantum DL7000 Int. SE SCSI \$280
 IBM Tape Drive 100GB/200GB Internal SCSI 00N8016 \$1080
HP / COMPAQ
 StorageWorks ESL9595 Tape Drive Lib 330833-B21 \$14,000
 20/40GB Compaq DLT Drive, DLT 1x20GB/40GB Ext. \$380
 20/40GB Compaq Business StorageWorks DAT Int. Auto \$425
 20/40GB HP DLT4000 SCSI SE Narr Sure Store DLT40R \$390
 HP SureStore DLT 80K Tape Drive SCSI LVD Rack \$780
 40/80GB Hp/Compaq DLT VS80 Int. SCSI LVD/SE \$780
 200/400GB StorageWorks Ultrium 460e TD LTO Ext. \$1845
 100/200GB StorageWorks Ultrium 230i TD LTO Int. \$1600
 400/800GB StorageWorks Ultrium 960 Tape Drive SCSI \$2,150
 200/400GB StorageWorks Ultrium 48 Ext. LTOUltrium \$1600

We sell HP, Compaq, IBM.
 Call us or go to our site for more!

OPTICAL DRIVES

Sony 650MB Magneto Optical Drive SCSI 5.25" \$7
 48x HP CD / Floppy Combo Internal HP DL320 G2 \$31
 4X4X24 HP CDR-W EIDE Internal D4398A \$11
 52X32X52 Memorex CDR-W External USB 2.0 \$26
 52X24X52X16 Iomega CDRW/DVD External USB 2.0 \$40
 10X HP DVD-Rom SCSI Internal C7499A \$160
 6X HP DVD-Rom IDE Internal For OmniBook \$90
 2.4x24x24x8 Samsung CDR-W / DVD Internal Slim \$37

FLASH MEMORY/USB PEN DRIVE

256 / 512 / 2gb / 4gb Compact Flash \$13/19/49/91
 512 / 1gb / 2gb Memory Stick \$3 / 52 / 88
 512mb / 1gb / 2gb / 4gb Secure Digital \$19 / 25 / 49 / 96
 512mb / 1gb / 2gb Multimedia Card \$29 / 56 / 97 / 235
 128mb / 256mb / 512mb USB 2.0 Flash Drive \$14 / 15 / 19
 1gb / 2gb / 4gb / 8gb USB 2.0 Flash Drive \$61 / 118 / 228
 4gb / 8gb / 16gb IDE Flash Drive \$199 / 335 / 565

We Carry all Types and Brands of MEMORY AND CPUs
 Please visit our WEB to check

ZIP DRIVES

2.2gb Castlewood ORB Intern/External SCSI \$15 / 31
 750mb Iomega ZIP Drive External FireWire \$59
 250mb Iomega ZIP Drive Internal \$31
 250mb HP Zip For E700 V300 N400C N600C N610C \$18

VIDEO CARDS

Matrox
 16 / 32mb Matrox G450 Dual AGP \$6 / 30
 32mb Matrox G450 / G550 Dual Head PCI \$78 / 80
 32MB Matrox G200 Quad PCI \$148
 64mb Parhelia P650 / P750 AGP \$125 / 185
 64mb Matrox G450 MM / Qid Quad MM PCI \$565 / 575

nVidia
 16MB / 32MB Riva TNT / Vanta \$8 / 14
 32MB / 64MB Beforce2 AGP \$11 / 17
 64MB / 128MB Geforce4 TI4200 AGP \$23 / 39
 64MB Quadro4 280NVS / 400NVS PCI \$125 / 345
 64MB Quadro4 200NVS / 280NVS PCI-Express \$70 / 99
 64MB Quadro4 000NVS / 280NVS AGP \$30 / 45
 64MB Quadro4 380NVS / 750NVS AGP \$35 / 215
 64MB PNY Quadro4 700XGL / 500XGL PCI \$36 / 42
 128MB Quadro4 900XGL / 980XGL AGP \$140 / 399
 128MB Quadro FX1000 / FX1100 AGP \$140 / 399
 128MB Quadro FX1300 / FX1400 \$399 / 550
 256MB Quadro FX3000 / FX3400 \$299 / 989
 256MB Quadro FX3450 / FX4000 \$885 / 1090
 256MB Quadro FX4400 / FX4500 \$1290 / 1450
 256MB GeForce FX5600 / FX5700 AGP \$55
 128mb 3Dlabs Wildcat 4 7110 AGP \$250

Appian
 64MB Radeon VE Rushmore Quad PCI \$34
 64MB Appian Radeon Typhoon VE AGP / PCI \$129
 64MB Appian X4 DVI-I Quad Monitor PCI \$189
 128MB Appian Phoenix Radeon 9000 QD PCI Quad \$410
ATI / Powered by ATI
 16MB / 32MB AT Rage \$9 / 14
 32MB / 64MB ATI Radeon 7000 PCI \$18 / 35
 64MB / 128MB Radeon9200 Pro AGP \$17 / 32
 64MB / 128MB Radeon X300 PCI-E \$21 / 38
 128MB Radeon 9600 XT 9600 AGP \$70 / 37
 128MB Radeon 9700 Pro / 9800 Pro AGP \$78 / 91
 128MB ATI V3100 / V5100 PCI-E \$99 / 355
 256MB ATI Fire GL V7100 PCI-E \$535
 256mb Radeon X850 XT Platinum VIVO PCI-E \$285

PRINTERS / SCANNERS / ACCESS

HP 2500CM InkJet Pro Color \$85
 HP DeskJet 9680 ColorInkJet / 5850w Color InkJet \$550 / 95
 HP PhotoSmart 8150 / 8450 Photot InkJet Printer \$54 / 85
 HP DeskJet 5440 Photo InkJet Printer \$29
 Zebra/Eltron LP2348 Plus Label Printer 120618-001 \$291
 HP LaserJet 4200n 220V \$582
 LaserJet 4250DTNSL 220V Laser Printer \$799
 HP LaserJet 4250TN220V/ LaserJet 4350N 220V \$750 / 75
 HP 5BIN Mailbox w/ stapler for LJ 8000/8100/8150 \$550
 HP 9200C Digital Sender Flatbed/Sheetfed Scanner Q5916A \$2050

888-644-7017
Fax: 425-251-5000

NETWORK PRODUCT

3COM Modules / Hubs / Switches
 3C16686, 3C16805, 3C16810 \$12 / 46 / 65
 3C16960, 3C16971, 3C16975 \$32 / 75 / 180
 3C16976, 3C16977, 3C16610 \$125 / 92 / 130
 3C16611, 3C1665A, 3C16951 \$75 / 580 / 50
 3C16954, 3C16980, 3C16980A \$73 / 90 / 145
 3C17100, 3C17111, 3C17131 \$285 / 390 / 575
 3C17203, 3C17204, 3C17205 \$556 / 2377 / 1325
 3C17221, 3C17701, 3C17711 \$205 / 1185 / 700
HP / HP Jet Direct Print Servers
 J3112A / J3113A / J3110A \$9 / 59 / 73
 J3111A / J4169A / J2550A \$38 / 200 / 27
 J4100A / J4101A / J4106A \$80 / 181 / 145
 J6057A / J7934A / J7942A \$173 / 383 / 104
 J2591A / J3258 / J2591A \$58 / 81 / 58
 J3265A / J4154A / J4110A \$132 / 36 / 600
 J4111A / J4113A / J4844A \$48 / 175 / 850
 J4845A / J7934G / J3263A \$1727 / 210 / 179
 J4135A / J6044A / J3258B \$114 / 154 / 89
 J6035C / J4102B / J4121A \$129 / 106 / 534
 J4167A / J3258A / J2556B \$46 / 81 / 89

QLogic

QLA220033 / QLA220066 \$170 / 90
 QLA2312F / QLA220F66 \$450 / 250
 QLA210033 / QLA210066 \$120 / 260
 QLA2202FCK / QLA2342 \$1320 / 1035
 LP1000E / LP8000 \$749 / 80
Cisco Routers / Modules
 Switch WSC295012 / WSC2955S12 \$550 / 1660
 Routers CISCO1721 / CISCO2612 \$650 / 2000
 Routers CISCO7206RF / CISCO3845 \$2687 / 9400
 Modules WS-X2861 / WSX5410 \$100 / 660
 GIGABIT Module WSG5486 / WSG5487 \$70 / 230
 LAN Adapter GLCSXMM / GLCLHSM \$100 / 120

**HP StorageWorks
 ESL9595 P/N 330833-B21
 External Tape Library
 400 Slots**



MSRP \$112,000
CompuVest Price . . \$67,000

WE PURCHASE MEMORY!

Sell your excess or obsolete DRAM based inventory simply, efficiently and with maximum recoveries.

Micro Memory Bank, Inc.
 www.memorybank.com
 215.643.6000
 ISO 9001 : 2000 Certified



www.bltrading.com

- \$2M in Inventory: SAN components, Disk Drives, HBAs, Switches, Tape Drives
- Storage Subsystems, Arrays, and more!
- Same-day shipments!
- EMC Certified Sales Professionals
- In-house integration staff
- Fully-tested equipment with manufacturer class warranties
- We BUY excess equipment!

Contact Michael Moore for more information:
 mmoore@bltrading.com

781-982-9664

BLTrading
 One Source...TOTAL Solution

OPINIONS

DATA • DEVELOPMENTS

Are Developers Really Customers?

I'm writing this from the speaker's lounge at the Developer Connections conference here in sunny Las Vegas. The animal shelters are filling up in the Seattle area because it's been raining cats and dogs for about five days as the "Pineapple Express" dumps the Pacific Ocean on Western Washington. Vegas is a welcome relief. Don't get me wrong, I love the weather in Western Washington—cool, cloudy, and sometimes rainy. But I digress.

Microsoft Wants Better Customer Support

Something occurred to me this week when the Microsoft MVP mega-leader asked all of the MVPs to rate Microsoft's product support against other companies. As you might have guessed, this is an especially sore subject for me as I have found a need to talk, chat, or interact (in some fairly unseemly ways) with product support people from (it seems) all over the world. Many of us responded with vociferous comments and feedback, anecdotal examples, and war stories of what was working and what was not.

I told them that while I've had problems with IBM/Lenovo from time to time, the product support people were all in my hemi-

sphere (physically and intellectually). With many other companies (including Microsoft, HP, Symantec, and others), that could not be said. It seems that these companies have seen fit to outsource their support to India or WhoKnowsWhereIstan. More and more studies have shown that customers are less inclined to like their support.

According to the Gartner Group, "Through 2007, 80% of organizations that



WILLIAM (BILL) VAUGHN

AUTHOR William (Bill) Vaughn is an industry-recognized author, mentor, and subject-matter expert with more than 30 years in the computing industry as a developer, manager, trainer, marketer, and writer. After 14 years at Microsoft, Vaughn stepped away to work on his new books, in addition to mentoring and leading training seminars. He's written six editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and two editions of "ADO.NET and ADO Examples and Best Practices for Visual Basic Programmers." He and Peter Blackburn just finished "Hitchhiker's Guide to SQL Server 2000 Reporting Services."

outsource customer service and support contact centers with the primary goal of reducing cost will fail." To me, this means that while some companies (large and small) have tried to save money by firing their in-country support staff and replacing them with offshore companies, many find that the

erosion of customer confidence and satisfaction outweighs any cost savings in the long term. As a developer looking for help, I'm constantly having to deal with this trend. This is the major reason that I don't use Symantec's Ghost or HP (anything), but I do use Canon, Nikon, and Lenovo.

Developers Aren't Really Customers

However, it seems that this is not the perspective that our fearless MVP leader was investigating. He wanted to know what "ordinary" people think about Microsoft product support. You know, those people who buy our applications—the people who don't know how to program or understand the cryptic messages that often pop up on the screen when we don't properly trap exceptions.

Apparently, these folks outnumber us developers by a million to one, so you can see why Microsoft is more interested in the masses. That's also why the Windows help tutorials and troubleshooters are more or less onnic (that is, moronic or "less onnic"; at least they seem so to me). These are the walkthroughs that start out by asking if the monitor is plugged in to the AC and say there is no such thing as an "any" key. It seems that this

content must help reduce the number of trouble calls when customers have problems with the Windows operating system de jure—otherwise, why would Microsoft keep putting them in the customer's face? It's also clear they weren't intended for other developers and me.

Making Sure Customers Don't Need To Call For Support

As developers, it's our responsibility to interact with these ordinary people and the things that go wrong with our software (and the operating system, the hardware, and everything to which they connect) and help the user figure out how to bring the application back to life or simply get it to stop doing whatever it's doing (or not doing).

This is not an easy task. However, the .NET Framework goes a long way to help us figure out what's going wrong. There are classes to determine the state of the net or of any Windows service, which user is connected, and much, much more. Yes, this seems like a lot to ask, but all too often there is nothing wrong with the application that's blamed for the problem but with the stuff to which it's connected.

That's why people who don't know better throw their monitor out the window instead of the server down the hall that's at fault. It's lucky that they haven't figured out that the real problem is you and your code. Keep in mind that none of these support classes can help at all if they aren't sewn into the fabric of your application.

Folks, as you well know it costs \$25 each time your phone rings. If it's a confused, irate, irrational, or ex-customer on the other end, it could be a lot more expensive. I think it's essential that we as application developers figure out how to prevent users from needing to call us or anyone on another continent to get support. □

Send your comments to
bill@processor.com

Digilant™

- NO EXCUSE · NO COMPROMISE -

Digilant's Network Attached Storage and iSCSI appliances provide your business a more efficient and economical way for data storage. Up to 30TB starting at \$895.



1U NAS



Starting at \$2,150



Starting at \$3,050



8U NAS

- Intel® Celeron™ 3.3GHz up to Pentium™ 3.8GHz
- 512MB DDR2 Memory up to 4GB
- 2x80GB (up to 4x750GB) SATA Hard Drives
- Intel Matrix RAID (embedded)
- Single Gigabit Network Card (embedded)
- 350W Power Supply
- CA's eTrust Antivirus 7.1
- Microsoft Storage Server 2003 R2

E1000

- Data Capacity from 160GB to 3TB
- 10/100/1000 Ethernet Connectivity
- RAID 0, 1, 10 and 5 Supported
- Fast SATA Hard Drives with NCQ Supported
- Multi-Platform Support
- Real-time Antivirus Scanning
- Installs in Minutes

Starting at \$895

- Data Capacity from 320GB to 3TB
- Intel® Celeron™ 3.3GHz up to Pentium™ 3.8GHz
- Hardware RAID Controller /w 256MB Cache
- RAID 0, 1, 10 and 5 Supported
- Dual Gigabit Network Card
- Windows Storage Server 2003 R2
- Or SUSE Linux Enterprise Server 10
- Next Business Day On-Site Service

2U NAS

- Data Capacity from 640GB to 6TB
- Intel® Celeron™ 3.3GHz up to Pentium™ 3.8GHz
- Hardware RAID Controller /w 256MB Cache
- RAID 0, 1, 10 and 5 Supported
- Dual Gigabit Network Card
- Windows Storage Server 2003 R2
- Or SUSE Linux Enterprise Server 10
- Next Business Day On-Site Service

Starting at \$3,050

- Data Capacity from 1.12TB to 10.5TB
- Intel® Dual Core Xeon™ 2.66GHz up to 3.6GHz
- Hardware RAID Controller /w 256MB Cache
- RAID 0, 1, 10, 5 and 6 Supported
- Dual Gigabit Network Card
- Windows Storage Server 2003 R2
- Or SUSE Linux Enterprise Server 10
- Next Business Day On-Site Service

3U NAS

- Data Capacity from 3.2TB to 30TB
- 2 Intel® Dual Core Xeon™ 2.66GHz up to 3.6GHz
- Hardware RAID Controller /w 256MB Cache
- RAID 0, 1, 10, 5 and 6 Supported
- Dual Gigabit Network Card
- Windows Storage Server 2003 R2
- Or SUSE Linux Enterprise Server 10
- Next Business Day On-Site Service

Starting at \$13,995

For more information or to place an order please call us at 800-306-2199 or visit us on the web at www.digilant.com

360 Technologies HP Sales and Rentals

Toll Free: 888-883-0360



BUY • SELL • RENT • LEASE • REPAIR

SPECIALS

C6751A	OfficeJet K80XI	\$85	Q1273A	DesignJet 4000 42"	\$8,995
C8392A	7110XI AIO	\$145	C1316A	9100C Digital Sender	\$1,195
C9660A	LaserJet 4600...	\$750	Q5916A	9200C Digital Sender	\$1,975
C6075B	DesignJet 1550CM+ 36"	\$6,995	C6074B	DesignJet 1050C+ 36"	\$5,495

Color LaserJets

C3985A	LaserJet 8500DN	\$1,895
C4089A	LaserJet 8000DN	\$495
C9661A	LaserJet 4600DN	\$750
C9795A	LaserJet 2500L	\$345
C7086A	LaserJet 4550N	\$545
C7087A	LaserJet 4550DN	\$650
C7098A	LaserJet 8550DN	\$1,495
C7131A	LaserJet 5500N	\$2,350
C8546A	LaserJet 9500N	\$4,750
C8547A	LaserJet 9500HDN	\$5,500
C9658A	LaserJet 5500DTN	\$2,495
C9659A	LaserJet 5500HDN	\$2,795
Q1320A	LaserJet 3500N	\$695
Q1323A	LaserJet 3700N	\$1,295
Q2488A	LaserJet 1500L	\$395
Q3670A	LaserJet 4650DN	\$2,095
Q3702A	LaserJet 2550L	\$275
Q3716A	LaserJet 5550DTN	\$3,375

Plotters

C4709A	DesignJet 750C+ 36"	\$1,895
C3198B	DesignJet 755CM 36"	\$2,095
C7789C	DesignJet 800PS 42"	\$4,795
C6075A	DesignJet 1055CM 36"	\$4,995
C4703A	DesignJet 2000CP 36"	\$1,995
C6019A	DesignJet 5000PS 42"	\$5,295
Q1254V	DesignJet 5500PS 60"	\$11,995
Q1274V	DesignJet 4000PS 42"	\$10,995

Call for all New and Used HP Equipment!



- All above equipment is refurbished and carries a 90-day parts & labor warranty.
- Visa, MasterCard & American Express accepted.
- Many orders shipped the same day!

LaserJets

C2001A	LaserJet4	\$175
C2037A	LaserJet 4+	\$195
C2039A	LaserJet 4M+	\$325
C3166A	LaserJet 5SI	\$495
C3167A	LaserJet 5SI MX	\$495
C3916A	LaserJet 5	\$250
C3917A	LaserJet 5M	\$295
C4110A	LaserJet 5000	\$695
C4118A	LaserJet 4000	\$295
C4120A	LaserJet 4000N	\$325
C4252A	LaserJet 4050T	\$395
C4254A	LaserJet 4050TN	\$445
C4265A	LaserJet 8150	\$595
C4266A	LaserJet 8150N	\$595
C4267A	LaserJet 8150DN	\$795
C8049A	LaserJet 4100	\$495
C8050A	LaserJet 4100N	\$595
C8051A	LaserJet 4100TN	\$695
C8052A	LaserJet 4100DTN	\$895
C8521A	LaserJet 9000DN	\$2,795
C8253A	LaserJet 9000MFP	\$4,795
C9124A	LaserJet 3300MFP	\$325
C9148A	LaserJet 4100MFP	\$1,295
Q1860A	LaserJet 5100	\$895
Q1861A	LaserJet 5100TN	\$1,095
Q2425A	LaserJet 4200	\$695
Q2426A	LaserJet 4200N	\$795
Q2428A	LaserJet 4200DTN	\$1,295
Q2432A	LaserJet 4300N	\$1,095</

OPINIONS

INFRASTRUCTURE

My IT Christmas List

Halloween was not even over for 24 hours before one of my overly ambitious neighbors deployed his giant illuminated inflatable polar bear with the Santa cap. You can't put up Christmas decorations in a jacket can you? Isn't there some law that says you have to wait until there is at least a foot of snow on the ground and temperatures that make penguins shiver before you can perilously scale an ice-ridden ladder to staple multicolored twinkle lights to your house? I might not be ready to dig the decorations out of storage quite yet, but I figure that if my neighbor has the lighted lawn ornaments out, I can at least start my letter to Santa . . .

Dear Santa,

I've been a good little IT manager this year. My expenses are within my budget; my projects are ahead of schedule; my staff has 100% job satisfaction; and my procedures are fully compliant with several dozen congressional acronyms. (Hopefully Santa won't mind a little embellishment . . .) For my commendable efforts, would you please expedite the following engineering and procurement tasks with your elfin developers in order to meet the Dec. 24 deadline:

Dehydrated Storage: When you need more—just add water. It's nearly 2007 and still the perennial No. 1 problem is storage. Big, fast, or cheap—you only get to pick two. It's the fastest growing need and the least flexible solution. Its mechanical nature is the most inclined to fail and

harbors the greatest potential information loss when it does. I earnestly believe that storage is the single largest barrier to the development of technology today. Maybe the elves can come up with something new.

Air Can AC: I tried to clean my keyboard the other day with one of those cans of compressed air. I almost got frostbite. Maybe the dust blaster can-o-air folks can work with some HVAC engineers and create a new data center cooling technology. A quick glance at any CPU manufacturer's roadmap suggests heat density problems

are not going away anytime soon. Unless we want to start introducing liquids into the data center again ("dehydrated storage" notwithstanding), we need something new. In the meantime, perhaps the elves can find a way to can some of this warm air coming off the back of my servers for purposes of cleaning keyboards.

Super Screen Wipes: I want some screen wipes so good that when applied to a screen wipe salesman it makes him disappear! The wipes should also work on training and printer toner sales staff. I bet I can't

go three consecutive days without receiving a cold call on one of these three items.

Gigabit Ethernet Mini-Fridge: I've recently noticed that our 6500 Series Cisco Catalyst switches are almost identical in size to my old dorm room refrigerator. They can't really need all that space inside for plain ol' Ethernet cards, can they?

MICHAEL DEMPSEY

AUTHOR Michael Dempsey is the information technology manager of Sandhills Publishing and technical editor of Processor magazine. He has more than a decade of experience in voice and data communications and holds current CCNP and CCDP certifications. Dempsey is an expert in network security, virtual private networks, and IT infrastructure.



Couldn't Cisco come up with a shallow line card so that the elves could tuck a mini-fridge inside? It would make those late night upgrades a lot more bearable if the caffeine were only an arm's length away. Really, it's sad to think the life of the IT professional is still half nocturnal. When will technology get to a point that we can trust upgrades, rollouts, patches, and fail-over techniques enough to do them during the day? Will it ever happen?

Vista: Yup, I want Vista for Christmas. Not because of what Vista promises, mainly

just because I am tired of hearing about its delays. Our Microsoft EA renewal is by far the largest line item on my annual IT budget, and yet its track record for providing new and useful technologies in a fashion that justifies the price tag is abysmal. I'd get a lump of anthracite in my stocking if my performance reviews were that poor.

Modded Servers: Pick up a copy of *CPU* magazine sometime (www.cpumag.com) . . . I want servers that look like that! It would serve no practical purpose, but it sure would lighten up the drab and dreary black and tan of everything else in the data center. Better yet, perhaps the proponents of on-demand computing initiatives could work with the NFL to emblazon their gear with team logos. You could have

everything from a Cardinals package for the low-performance utility machines to the Colts package for high-end symmetric multiprocessing. It might be just the thing to revive an otherwise promising concept that seems to have slipped from the headlines. (NOTE: You will want to avoid the Raiders servers if interoperability is necessary.)

Thank you, Santa, for your prompt attention to these matters. I'll look for your biweekly status reports, and hopefully we can avoid a repeat of the nasty supply chain issues we had last year.

Ho-Ho-Humbly Yours,
Michael

*Send your comments to
mike@processor.com*

[Couldn't Cisco come up with a shallow line of card so the elves could tuck a mini-fridge inside?]

A Window into Wireless Networks

Wi-Net Window gives you a clear picture

To install, expand or operate a wireless network you need to be able to see critical information about where the best location is for components, what access should be allowed and where or what security is in place. The new handheld Test-Um Wi-Net Window Analyzer gives you all the critical information you require and more! Take a look at all of its advanced features:

- Full alpha/numeric LCD display shows all information clearly and completely
- Picks up IEEE802.11 wireless signal types b and g
- Signal strength shown as a lighted bar and as a percentage for clarity
- Shows component name and channel of transmission
- Lists and logs all received wireless transmissions in the area for inspection with constant scanning
- Audible network pick-up signal
- Displays encryption condition on each wireless component
- Lists each signal as either an access point, an ad-hoc or Twin network type
- Ping function accesses IP addresses and determines an internet link condition
- Negotiates with network DHCP for component ID
- Shows router, DNS and target information
- Auto-off
- Lightweight: less than 8 ounces with batteries installed



WP150
Only
\$249.00



Test-Um Inc.
The Intelligent Test Solutions Company
www.test-um.com
805-383-1500 • FAX 805-383-1595



Memory For PC & MAC

We Buy Memory
Immediate Need For:
256 & 512 MEG DDR 2700 & 3200
Please Call
(239) 596-2254
FAX: (239) 596-2256
jeffsms@aol.com
www.smsassembly.com

SMS MEMORY
We've Been In the Memory Business Since 1987

Buy & Sell CISCO
USED ROUTERS, SWITCHES, & NETWORK HARDWARE

Domestic Toll Free
1-888-443-3852
www.dni-ilc.com

Tel. 1-973-486-0440 / Fax. 1-973-486-0445 / E-mail: pr@dni-ilc.com
90 -100 Route 206, #290 Stanhope, NJ 07874

datanetworks
INTERNATIONAL
YOUR NETWORK'S BEST FRIEND, IN THE WORLD™

IT Professionals
ReCURRENT
technologies, inc.

CISCO SUN HP DELL F5 JUNIPER EXTREME FOUNDRY BROCADE

Sun Fire V210 Price \$2,995
w/Dual 1GHz CPU, 2GB memory, 2x 36GB disk

Trade-in Cisco PA-MC-2T3+ Price \$9,250
List Price \$28,000

Cisco 3725 Router Price \$2,650
List Price \$8,500
TWO-YEAR WARRANTY

The Undisputed Leader in Pre-Owned Networking Hardware Since 1996
(408)727-1122 www.recurrent.com
3431 De La Cruz Blvd | Santa Clara, CA 95054 info@recurrent.com

MEDIA-MASTR COMPUTER PRODUCTS, INC. **(800) 220-1616**
609-586-7576
Fax: 609-586-7581

COMPUTER TAPE WANTED! NEW OR USED
3590E's • 9840's • 9940's • LTO's
Round Reel Tape • 9 Track • **3480** • 3490E •
DLT's: TK50's • TK70's • TK85's • TK88's
www.mmcp.com
7A Marlen Drive Robbinsville, NJ 08691

COMPUREX SYSTEMS CORPORATION
Your Leading Independent Reseller
Since 1987
IT Asset Disposition
Solutions Provider

WANTED!

- Compaq-DEC-HP
- ALPHASERVERS
- DS, ES, GS Series

• 35 Eastman St. • S. Easton, MA 02375 • www.compurex.com
• (800)426-5499 • (508)230-3700 • Fax: (508)238-8250

abacus
SOLUTIONS

Offering unbeatable solutions for:
IBM AS/400 (iSeries)
IBM RS/6000 (pSeries)
Sun Microsystems
HP9000
Cisco Systems

Buy, Sell, Lease & Rent - New & Used
800-605-5446
Ph: 770-738-1101 • Fax: 770-738-1110
www.abacusslc.com • info@abacusslc.com

I T T Information Technology Trading
Ph: (877) 715-3686 Fax: (405) 715-3682 www.itechtrading.com
IBM

We Buy, Sell and Lease IBM AS/400 • RS/6000 • Servers
System Upgrades
Advanced 36 Systems
Tape Subsystems
Printers, Terminals, Modems
21 Years Experience

We Also Buy All Other Brands of Computer Hardware!

Millions of Items.... www.lincocomputer.com

Home Inventory Sales Repair Policies Contact

Check Out Our Website -- www.lincocomputer.com
Call if you do not see what you are looking for!

Depot Repair for Monitors, Terminals, Printers PC's, and Laptops

281-893-8880 **Fax: 281-893-8897**
sales@lincocomputer.com

ISM INTERNATIONAL SYSTEMS MANAGEMENT INC.
800.421.6572
Ph: 770.840.8994 • Fax 770.840.9228
www.ismweb.com • info@ismweb.com

IBM iSeries • IBM pSeries • Sun • HP9000 • Cisco
We Buy, Sell, Lease and Provide Short and Long Term Rentals
90 Day Warranty on All Refurbished Systems, Memory, Disk & Parts
Call Us To Save Up To 90% On Used Certified Equipment!
CALL ISM FOR ALL YOUR MIDRANGE COMPUTER NEEDS!

BUY & SELL HARD DRIVES

FLOPPY DRIVES • CDROMS • CONTROLLER CARDS
New/Used/Pulls • Notebook/Desktop/Servers
All interfaces and capacities
www.drivesolutions.com
818-718-6900 Ph, 818-718-6100 Fax
email: sales@drivesolutions.com or purchasing@drivesolutions.com

FREE SHIPPING!

We Buy Used Cell Phones & pay **\$50** for each phone!
Some phones have no value. See current purchase price list for individual model prices at www.pacebutler.com
www.pacebutler.com
1-800-248-5360 • (405) 755-3131

Pacific Trading & Recycling
Buyers of electronic Scrap
Mainframes, PC's, Central office Telephone equipment, Copper Scrap, Large and Small Transformers, Copper Wire, and Silicon Steel
Phone: 256-442-3555
Fax: 256-442-3670

KRONOS 480F TIMECLOCKS

With Ethernet, New Battery & Power Supply
Refurbished, Tested & Air Packed - 30 Day Warranty
Summer Sale: \$225.00 Each
(Ask About Quantity Discounts)

Pegasus Computer Marketing, Inc.
Ph 972-564-3087 • Fax 972-564-5027
Toll Free 800-856-2111 • pegasus5@airmail.net

K.D.S. INC. 818-700-9510
Kieu's Direct Source, Inc.

We Do:
DATA RECOVERY

- Fast, Safe & Reliable!
- No Files - No Charge.
- Free Evaluation.
- Data Guarantee.

We Repair, Buy & Sell:
HARD DRIVES & TAPE DRIVES

- Drop / Blind Shipments.
- Corporation, School and Gov't PO's Welcome.
- Guaranty low prices

www.kdsdrives.com email: iam@kdsdrives.com
WE BUY EXCESS INVENTORY!!!

HARD DRIVES - BUY & SELL

New/Used/Pulls * All Interfaces
Notebook/Desktop/Servers * Working & Non-Working
Laptop/Desktop/Server Systems * Close-Outs
Peripherals * ICs * Memory * Ink Toners * Cell Phones
818.576.0016 Ph. 818.576.0081 Fax
e-mail: arccompo@yahoo.com
www.arcdrives.com

NEW • USED • PARTS • WHOLE UNITS • REPAIRS • Since 1993

OKI® DISPLAYS, CONTROLLERS, PRINTERS		
COAX or TWINAX DISPLAYS CONTROLLERS PRINTERS		
1191, 1192	274	287, 387
1472, 1481	1374	1187, 1234
1482, 1483	1174	1387, 1324
1488, 1489		1330

L & L Systems Ph: 918-234-1200
Fx: 918-234-1276
E-mail: sales@L-Systems.com

Find Detailed Product Information FAST

KVM & Console Access
www.Processor.com/Rose3 MAY 6, 2005

UltraMatrix™ Remote Server Management
• Connects 1,000 computers to multiple user stations over IP
• Secure encrypted operation with computer access control
• High-quality video up to 1,280 x 1,024.
• Advanced visual interface (AVI). Easy to expand.
• No need to power down servers to install
• Free lifetime upgrade of firmware. Call for other models
10707 Stancliff Road Houston, TX 77099 Phone: (800) 333-9343 Fax: (281) 933-0044

ROSE ELECTRONICS

Each Showcase ad now contains a custom URL that begins with www.Processor.com.

- 1 Find a product that interests you.
 - 2 Type the URL into your browser.
 - 3 In almost all cases, you're taken to that product's page on the manufacturer's Web site, so you don't have to go to the manufacturer's home page and navigate through countless links and pages to find the product being advertised.
- If you don't have a copy of Processor handy and there's a manufacturer you'd like to learn more about, try typing in www.Processor.com/manufacturername.

PROCESSOR

We've Changed.

Have You Noticed?

If you're in the market for data center equipment, you need to make Processor.com your first stop.

The New All-In-One search at Processor.com makes it easy to:

- Find **product information**
- Research and compare related products in a category
- Read **editorial reviews** and **articles** related to a topic
- Enter **keywords** to search for **product information**
- Send an **email** to a **product manufacturer**, link to the manufacturer's Web site for **additional product information**, or find a **phone number** to call

The Processor.com homepage features a large search bar at the top with the text "All-In-One Search NEW! Find ALL New Product Information With ONE CLICK!". Below the search bar, there are several navigation categories: Physical Infrastructure (Cabling, Cable Distribution, Environmental Monitoring, Flooring, HVAC, Power Distribution, Power Management, Power Protection, Racks & Furniture, Storage & Transport), Communications (Application Networking, Carrier Networking, Network & Systems Mgmt., Router, Security, Serial Networking, Storage Networking, Switch, Telephone, Video, Wireless), Software (Business Productivity, Data Center Services, Database & Data Mining, Hosting & Disaster Recovery, Messaging & Groupware, Multiple IT Services, Network & Systems Mgmt., OEM Services, Repair, Security, Storage, Training), and Services (Business Productivity, Data Center Services, Database & Data Mining, Hosting & Disaster Recovery, Messaging & Groupware, Multiple IT Services, Network & Systems Mgmt., OEM Services, Repair, Security, Storage, Training). The page also includes sections for the Processor Showcase, Cover Articles, and a sidebar with links to browse processor showcase ads by category or advertiser, and a word/phrase search feature.

All with JUST ONE CLICK!

Go Online To
www.Processor.com today!

PROCESSOR.com®

Is Fiber Getting Lost In The Shuffle?

Fiber & Copper Cabling Coexistence Is Key To Cabling Solutions

by Will Kelly

• • •

AFTER TWO YEARS of intense speculation and scrutiny, the 10Gb-over-copper cabling standard has finally been ratified. However, with all of the attention paid to copper, is fiber getting lost in the shuffle? Even though copper cabling is a more cost-effective option, fiber is still a necessary ingredient for high-bandwidth networks, particularly if your future data center expansion plans call for supporting 40Gb pipes.

The cabling market is especially ripe for competition as the ratification of the 10Gb copper cabling standard is being met with fiber cabling costs trending downward.

Copper, Fiber & The Market

Matt Brown, product manager FOA for CommScope (www.commscope.com), the parent company of SYSTIMAX Solutions (www.systimax.com), says copper cabling has gotten lots of press lately with a lot of hedge buying when copper raw materials took off this past summer.

While the ratification of the 10Gb copper standard has certainly turned some eyes to copper cabling, the market fluctuations have actually enabled copper cabling to make inroads into territory once held by fiber cabling. While traditionally fiber cabling is best known as a cabling solution

for "long haul" jobs and as more expensive, it does offer cost-conscious small to mid-sized enterprises benefits they can't realize with strictly copper cabling.

If you are fighting the copper vs. fiber costing battle, it is prudent that you do your own research and costing first, sans vendor. Look to online resources such as the Fiber Optics LAN Section of the Telecommunications Industry Association that makes an online interactive costing tool on its Web site available for use (after filling out a simple online registration form). When researching the copper and fiber cabling markets, you are following raw materials, the actual cabling, and the services required to run the cable in your facility. This formula can sometimes make for a wild ride as advancements and market conditions shake up cable pricing.

IT Demands On Fiber Cabling

While fiber cabling can be more expensive than copper cabling, it is designed with more capacity than its copper cable cousins. While 10Gb fiber cable has been shipping since 2003, it doesn't necessarily mean that customers are using the cabling at full 10Gb capacity. Running the 10Gb fiber cable into a data center scenario makes sense when you look at it from a future-proofing perspective because the

cable plant is in place for the future growth (or not) of your data center technology infrastructure.

As costs for fiber cabling are trending down, you must consider the other strengths of fiber, including increased pulling tension and the fact that it takes up less space under raised flooring and in risers.

The robustness of fiber cabling is one of its strongest selling points because copper cabling has more sensitivity, sharp edges, and less bend radius than fiber cabling.

The Fiber Optics LAN Section sees a number of market drivers for fiber cabling, including the rise of new applications pushing copper cabling to its limit and improved fiber interconnect technology. Other drivers include the lowered costs of optoelectronics and the ratification and standardization of new fiber-friendly architectures. The costs for new grades of UTP copper are much higher; however, the testing of fiber-optic cable links remains simple, while testing copper links has become increasingly complex.

If your SME is looking to next-generation enterprise storage-area networks, fiber cabling has to be part of the plan because storage providers such as EMC (www.emc.com) or IBM (www.ibm.com) are taking advantage of fiber cabling for device access and data transport.

Upgrade Path For Fiber Cabling

As an SME, one future to consider is a mixed-medium network, where you augment

your legacy copper cabling with fiber cabling, especially in the corporate data center where you drop in fiber cabling because it offers better support for electronics. In a data center environment, fiber cabling takes up much less space.

Brown even points to future-seeking customers dropping in "dark fiber," fiber cabling that isn't live but lies in wait for future network upgrades.

Fiber's Future In The SME

David Hall, product manager of enterprise fiber-optic cable for CommScope, speaks of fiber cabling's promise by saying his company is excited about the market for fiber cabling in both local area networking and data. While the market is embracing fiber, your SME can find many benefits with the mix of copper and fiber cabling, meaning that the recent shuffle between fiber and copper cabling in the market was just a momentary blip on the radar. □

Benefits Of Running Fiber

When contemplating the running of fiber vs. copper cabling, you should consider the following:

- Fiber cabling is "future proof," meaning you don't have to upgrade your cable plant, unlike when you upgrade copper cabling to 10Gb and must upgrade your cable plant.
- Fiber cabling is more secure than copper cabling.
- Fiber cabling has higher bandwidth capacity.
- Fiber cabling offers ease of scalability and lower maintenance.
- Fiber cabling offers lower first-time installation costs, making fiber in the horizontal a compelling choice.

Built For Performance

© 2006 iStor Networks, Inc. iStor Networks, Inc. is a registered trademark, and the iStor Networks logo and GigaStorATX are trademarks of iStor Networks, Inc. Photo courtesy of Outerlimits Offshore Powerboats. All rights reserved worldwide.

Disappointed with a lack of performance in your current iSCSI or Fibre Channel-based storage? iStor Networks, Inc. is in a class of its own, providing the System 2 Solution high-performance iSCSI IP Storage.



GigaStorATX™



iS326

iStor Delivers iSCSI

iStor found inspiration when it created the highest performance, up to 1160 MB/s, and most robust iSCSI products. The resulting solutions provide companies with the ability to overcome technology and total cost of ownership limitations in DAS, SAN, and NAS environments.

The System

Fully-integrated GigaStorATX 1GbE and 10GbE controllers conform to the ATX form factor specifications, providing a cost-effective performance-based iSCSI Storage System.

The Solution

For VAR's and System Integrators that require a vendor-provided enclosure, iStor offers the iS326 Solution. The iS326 includes the GigaStorATX System supporting eight ports of GbE or a single 10GbE for iSCSI connection, with capacity for up to 15 customer-supplied high-capacity SATA drives.

When it comes to high-performance, feature-rich, and cost-effective iSCSI RAID storage, iStor Networks solutions should be on your evaluation short list. iStor offers you the balance of price and performance that makes iSCSI IP Storage an obvious "YES" decision for organizations of all sizes or sophistication.

iStor
Networks, Inc.[®]
empowers the Storage
Market with a
Systems2Solutions

cost-conscious iSCSI
system focusing on
performance and
flexibility.



iStor Networks, Inc.[®]

www.iStor.com

The iStor Networks web seminar "IP SAN's in the SMB" featuring Brian Garrett of ESG can be viewed at www.infostor.com/webcast.

Are You Dealing With A God Box Or Pandora's Box?

All-In-One, Jack-Of-All-Trades Appliances Bring Both Solutions & Challenges

by Tony Bradley

FOR NETWORK AND security administrators, the security landscape of the network has changed dramatically in the past decade. In years past, security was a distant afterthought, and administrators focused primarily on network performance, traffic bottlenecks, and packet latency.

The ever-growing deluge of security threats has forced administrators to implement a variety of security solutions to protect the network. Firewalls keep out unauthorized users. Antivirus products protect the network from viruses, worms, and other malware. There are tools and appliances to filter spam, detect and block phishing scams, verify policy and regulatory compliance, and more.

Implementing such a wide variety of security products on the network poses a number of problems. First, just getting them all connected can be a problem depending on where they need to sit to do their job. Second, managing them can be an issue because administrators have to learn to use separate consoles and log in to separate consoles to maintain them. Another concern is how well the various products are able to coexist and work together to protect the network without causing conflicts with each other.

SPONSORED LINKS

Metavize EdgeGuard Gateway Security Appliance

We offer a number of tools, including AntiVirus Scanner, SpamGuard, Spyware Blocker, PhishNet, Web Content Control, and Rogue Protocol Control
www.Processor.com/Metavize

Sensory Networks SAA

Our integrated UTM software platform connects our customers and partners to a marketplace of next-generation network and security services
www.Processor.com/SensoryNetworks

ZyXEL ZyWALL 70 UTM Firewall/VPN Gateway

Designed for small and medium-sized enterprises looking for a cost-effective Internet security appliance and VPN concentrator
www.Processor.com/ZyWALL70

The God Box

To combat these issues, security vendors have tried to roll as many functions as possible into one appliance or package. Combining a firewall, antivirus, spam-blocking, and other security functions into one appliance solves many of the issues. It only requires one connection. It only requires administrators to learn and use one console. The different security functions are designed to interoperate and to peacefully coexist.

The all-in-one appliance, affectionately dubbed the "god box" by some, introduces its own challenges as well, though. You may be able to connect to the network using a single port, but can the appliance

all-in-one appliance is that an update for one security technology has an impact across the board on the other security functions being performed.

Sonny Discini, senior network security engineer for the Montgomery County Government in Maryland, points out that "many of these appliances force you to upgrade on a regular basis, which may actually change certain aspects of the appliance that you like. Forced upgrades are nothing new, but when you find yourself in a position where you're fixing something that is not broken, many times the outcome is not beneficial. For example, if you have a firewall/IDS/VPN appliance and you have to apply an update to the appliance, you will impact three core services should something go south."

Some vendors can't leave well enough alone, either. A product may be functioning

One issue with using an all-in-one appliance is that an update for one security technology has an impact across the board on the other security functions being performed.

handle the volume of traffic that will be thrown at it? Trying to run all network traffic through a god-box appliance may result in the appliance being the bottleneck causing more problems than it fixes.

Ben Rothke, an information security director for a New York-based financial services company, says, "One of the issues here is that far too many companies take vendor marketing claims as an unquestionable truth. Marketing glossies and product reviews are helpful but should be treated with a grain of salt. When buying a product, you should make it your goal to outsmart the press, marketing, and sales people."

Specifically, vendors tend to claim that their products are capable of handling virtually any speed and volume of traffic without introducing any network latency. Rothke says, "Yes, many of these products are designed to operate at gigabit speeds, and they do. But corporate production environments are not the same as the pristine labs in which they are tested."

Too Many Moving Pieces

Another issue with trying to keep up with new threats and vulnerabilities and provide the protection your network needs using an

wonderfully and doing a great job at performing the core functions it was designed to, but due to outside influence from a single customer, it could have unnecessary bells and whistles tacked on that can complicate and mess up the whole thing.

Discini illustrates this example: "A well-known vendor that built a solid name on their SSL products bolted on features that 90% of the existing client base would never use. This was done to serve the needs of a specific and specialized technology business sector. Along with the wealth of new features came complicated configurations, more bugs, longer learning curves, and less intuitive interfaces."

Keeping Up

It doesn't appear that the malware developers and malicious hackers of the world plan to stop discovering vulnerabilities or creating exploits to gain unauthorized access to your systems anytime soon. So, you are left faced with new threats on a daily basis.

The technologies you employ to detect and defend against those threats must be able to keep pace with the threats themselves, through timely updates as new threats are identified, and with the demands

of the network, by not becoming a network bottleneck that constricts all traffic. An all-in-one appliance can save a lot of money and make administration simpler and more efficient. Just be sure that you have done your due diligence and choose a product that works for you.

Discini says, "At the end of the day, your requirements should drive your technology purchases, and your requirements should be derived from your business processes. Start here and only deploy what you need. God boxes may actually be a best fit for you, but before you invest in such technologies, do your homework and be sure you understand precisely how it will impact your environment." □

Do Mergers & Acquisitions Kill Products?

Often, the most daring, cutting-edge product innovation comes from startups and other small companies. Driven more by passion than profit and with little to lose, these companies take chances that larger, established enterprises can't.

Once the technology is incubated at the startup level and starts to establish itself as a viable solution for an existing problem, though, those larger, established enterprises tend to snatch up the small, cutting-edge startup through mergers and acquisitions so they can incorporate the technology into their own product offerings.

Frequently, however, the brain trust and passion that developed the technology, the employees of the smaller company, are swept aside, and the net result is that the technology becomes a mere shell of what it once was or what it potentially could have been.

Sonny Discini, senior network security engineer for the Montgomery County Government in Maryland, says, "Some big players attempted to buy the best point solutions and then build a god box, but I can't think of a single attempt that has produced the desired results. The magic seems to fizzle through the pains of acquisition. Either the talent leaves or the product is sent off in another direction, which completely changes the effectiveness that was sought after to begin with."

iStarUSA

W SERIES CABINET

- Cabinet, Wallmount, Open-Frame Format
- Compatible to IBM, HP, and Standard Rackmount Chassis
- 6U, 9U, 15U, 22U, 36U, and 42U Size Available
- Perforated, Glasses, and Solid Door Option
- Full line of Accessories for Cabling, Power Strip, Shelving, and Rails
- OEM/ODM with Full Customization Capability

- ✓ W Cabinet Series
- ✓ WM Wall Mount Series
- ✓ WO Open Rack Series
- ✓ WA Rack Accessories



CALL TODAY!
 1.626.303.8885

Please refer to our website for a full product listing.

www.istarusa.com

Superior Appliance Solutions for OEMs and ISVs



www.pyramid-usa.com

Pyramid Computer is a leading supplier of branded appliance solutions for OEMs and VARS. We offer a complete range of design, manufacturing and logistics services that allow you to effortlessly deliver a superior product to customers on a world wide basis, and focus your attention on core business activities.

- Quickly deploy an attractive high quality product with your own brand and image
- Minimize your efforts managing manufacturing, logistics and hardware support
- Reduce inventory costs, risks
- Demonstrable value even at low volumes

pyramid
computer

Pyramid Computer USA
 Phone: (866) 745-3553
 Email: info@pyramid-usa.com

"Full project planning from start to finish"

Premier Solutions Co. understands critical data operations and our 20 years of industry experience benefit our client base of over 30 data center buildouts and expansions.



Our services include:

- Server Management Solutions
- High-Density Server Solutions
- N+1 Power Solutions • Full Installation
- Thermal Management

www.Processor.com/PremierSolutions6

PREMIER
SOLUTIONS CO

Serving The Information Technology Industry

Avocent

APC
Legendary Reliability®

17150 Newhope St. Suite 206
 Fountain Valley, CA 92708
 Phone: (714) 557-5800
 Fax: (714) 557-5855

Your Employee-To-Printer Ratio

Take A Look At Your Equipment Setup Needs

by Curt Harler

• • •

THE FIRST STEP TOWARD saving printing costs is having the appropriate number of printers match the number of workers in an office. There is no reason to over-buy printers or scanners. On the other hand, having too few units stifles productivity. A good rule of thumb, company-wide, is to have five to eight employees per printer. This generalization varies by department depending on the work done.

According to a report from Konica Minolta (konicaminolta.com), a firm with

Users Per Printer

While some small to midsized enterprises provide close to a one-to-one ratio of employees to printers, the industry average is more than double that. It is possible, however, to be effective at much lower printer densities. Here are the user-per-printer averages in different sectors.

High density	1.2
Average density	2.8
Medium density	8
Low density	12

1,000 workers can expect to have 80 to 85 printers in the office. That works out to about 12 workers to one printer. But that will vary all over the lot, depending on the industry.

One way to find out just what is running in your company is to do a site audit. Netaphor Software (www.netaphor.com) sees a lot of data on printer usage. Its SiteAudit product discovers printers and analyzes usage, performing 30-day assessments or ongoing printer fleet management.

"From our case studies, we find an average ratio of 2.8 employees to one printer," says Brian Anderson, vice president of marketing at Netaphor. The company targets 500- to 1,000-seat businesses. "Total printers equals directly connected and networked printers," Anderson continues. The company's software finds both types. "This ratio is easier to apply to the office environment," he says. "The average is predicated on the environment. For an office, a ratio of between five to one and eight to one is considered optimal."

Anderson continues, "The objective is to achieve adequate utilization to justify the printer lease/purchase. That is to avoid print penalties or in cases of purchased printers a minimum of 20% of their duty cycle."

Then, identify which printers are critical to the business. A printer utilization and placement count gives this figure. You can selectively provide key printers with maintenance coverage to avoid downtime.

Types Of Printers

What kind of printer you choose can vary by company size, budgets, and usage. According to Lexmark (www.lexmark.com), inkjets are suitable for smaller workgroups or individuals who do not print much. Lasers are geared toward larger workgroups with greater and more diverse printing needs. An administrative assistant who types mainly correspondence does not need a color printer at the deskside. But the marketing department, often sending out fancy promotional material, does need a color printer.

Laser printers offer advanced features that inkjets do not, including duplexing, additional paper drawers, and networking. Adding a duplex unit to a laser printer allows pages to be printed front and back automatically, cutting paper usage in half. Duplexing pages also gives the user capabilities that increase document format options, such as offering the ability to create booklets and professional brochures. Users find that units with duplex capacity reduce paper consumption and paper costs. Another tip is to assign different paper trays for draft and high-quality paper to help simplify the office.

Most small to midsized enterprises network printers. That is as simple as adding an Ethernet or wireless network card to the printer. Often the purchase of multifunction equipment that can print, fax, copy, and scan—and that is Energy Star-compliant—can save hidden expenses such as energy costs.

Printer Specifics

Another factor is determining which employees or departments get how many printers. Anderson notes there are several parts to the answer. "First, you want to balance employee productivity with your printer investment so as to achieve capacity

optimization. You can achieve this by looking at historical data (three to six months) on utilization and printer placement. You want to track (count) features of an MFP [that] get used, e.g. copy, fax, print, scan."

Just as important as knowing how many printers to buy is to identify underused printers or scanners. A machine that is idle, or only occasionally used, can be networked into a busier group and eliminate the need to purchase another unit. An SME should go through a regular rebalancing process, which can be done quarterly.

There can be variation by print application. For example, secure documents may require a dedicated printer, or an executive may need a dedicated printer.

In general, printers last longer than people would believe. An aging and service analysis will assist with replacement decisions.

Undocumented printers also add cost. The number of undocumented printers in an SME can run over 30%, Anderson says. "The number is even higher for organizations that have a lot of directly connected printers."

Combine unused and underutilized printers, and the figure can run 50% and above, he says. "Some may have a special application where print volume is not important, but they are the exception."

Anderson says, "Since most organizations do not have visibility into the utilization of underutilized printers, they are rarely redeployed or returned. They tend to become a fixture, and as organizations grow, more printers are procured without consideration to redeployment."

SPONSORED LINKS

Printronix P7000HD Line Matrix Printer
Integrated print management provides total visibility and control of image quality and consumables
www.Processor.com/Print



800-657-9555

Phone: (817) 249-9950
Fax: (817) 249-9069
Email: Sherisa@regentsales.com

High density	1.2
Average density	2.8
Medium density	8
Low density	12

BULLSEYE!

15K, 146GB HDD Pluggable	347708-B21	\$495.00
15K, 72GB HDD Pluggable	286778-B22	\$319.00
15K, 72GB HDD Pluggable	3R-A3851-AA	\$325.00
10K, 300GB Pluggable	350964-B22	\$575.00
10K, 300GB Pluggable	3R-A4952-AA	\$595.00
10K, 146GB Pluggable	286716-B22	\$345.00
10K, 146GB Pluggable	3R-3841-AA	\$345.00
HP MSL6000 ULTRIUM 460 DRIVE AD605A		\$2,900.00
FCA2214 2GB 64BIT 133MHZ PCI-X 281541-B21		\$685.00
48 Port 10/100 Switch Enhanced OsWS-C2950G-48-EI		\$2,345.00
24 Port 10/100 Switch Enhanced OsWS-C2950G-24-EI		\$1,370.00
LTO3 Data Cartridges D2406-LTO3		\$71.85
SDLT Media Bar Code Reader SG-XBARCODES-L8		\$825.00

Regent Sales, Inc., Your "On Target" Choice For New, Used & Refurb Equipment

authorized reseller

COMPAQ ProLIANT • ALPHA • STORAGEWORKS • RESELLER

Quality • Integrity • Value

CISCO NORTEL
NEW • USED / BUY • SELL

NORTEL
FORTINET REAL TIME NETWORK PROTECTION

bluesocket

Special
Nortel BPS 2000 switch
NLE Good as New \$395.00

- Trade-ins welcome!
- Authorized service contracts available
- Full Warranty on all products!
- Role-Based networking experts!
- Proactive threat management!

888-8LANWAN
Call for Free Quote! (888-852-6926)
801-377-0074

Visit Us On the Web At: www.nle.com Fax Equipment List To 801-377-0078



VIBRANT TECHNOLOGIES

We're fishing for your used hardware.

- IBM SYSTEM P5 (PSERIES)
- IBM SYSTEM X (XSERIES)
- HP PROLIANT (COMPAQ)
- HP INTEGRITY (HP9000)
- SUN MICROSYSTEMS
- CISCO ROUTERS
- CISCO SWITCHES
- EMC SAN STORAGE
- IBM SYSTEM STORAGE
- BROCADE SWITCHES
- EMULEX HBAs
- AND MORE

VIBRANT BUY EXCESS AND OFF-LEASE SERVERS, STORAGE AND NETWORKING EQUIPMENT

952-653-1700 | SALES@VIBRANT.COM

BUY • SELL • LEASE • REPAIR

dbg Digital Brothers Group DEC-Compaq-Cisco-Sun-SGI

AlphaServer GS160 Model 16
Base System for OpenVMS

- DY-160CG-AA
- One Alpha 21264 Processor 1224 MHz
- Four Quad Building Blocks
- One 14-Slot PCI Shelf
- OpenVMS Operating System License

ALSO AVAILABLE:

- Additional 1224 MHz CPU w/SMP
- Additional Memory
- Additional PCI Shelves
- Additional PCI Options

2 SYSTEMS IN STOCK!

Authorized **COMPAQ** Reseller

WE WILL BUY YOUR USED HARDWARE!

Call or E-Mail For Pricing

PRINTRONIX QMS
New & Refurbished PRINTERS
SPARE PARTS • EXCHANGES • SUPPLIES
TW-AX • CO-AX • IGP™
QMS® Magnum®
Data Reliance Corporation
"Your Reliable Printer Source"

www.datareliance.com
Ph: 574-935-9550 Fx: 574-935-9555

HEWLETT PACKARD
Global Printer Services
5980 Executive Dr.
Madison, WI 53719

GPS GLOBAL PRINTER SERVICES INCORPORATED

www.globalprinter.com **www.HP4Sale.com**

HP LJ 1100	\$159	HP LJ 4250N	\$815
HP LJ 1300	\$229	HP LJ 4500 series	\$1,050
HP LJ 2100	\$189	HP LJ 4550 series	\$949
HP LJ 2300	\$389	HP LJ 4600	\$799
HP LJ 2300D	\$429	HP LJ 5000	\$459
HP LJ 2300DN	\$529	HP LJ 5000N	\$699
HP LJ 4000	\$285	HP LJ 5Si	\$285
HP LJ 4000N	\$355	HP LJ 5SiMx	\$369
HP LJ 4000T	\$295	HP LJ 5SiNx	\$330
HP LJ 4000TN	\$365	HP LJ 8000	\$325
HP LJ 4050	\$315	HP LJ 8000N	\$425
HP LJ 4050N	\$405	HP LJ 8000DN	\$560
HP LJ 4050T	\$345	HP LJ 8100	\$499
HP LJ 4050TN	\$435	HP LJ 8100N	\$669
HP LJ 4100	\$359	HP LJ 8100DN	\$769
HP LJ 4100N	\$439	HP LJ 8150	\$549
HP LJ 4200	\$599	HP LJ 8150N	\$649
HP LJ 4250	\$699	HP LJ 8150DN	\$799

800 - 588 - 3554 or 608 - 268 - 4300
Fax: 608-268-4343 • E-mail: sales@globalprinter.com

WHAT'S HAPPENING

Gigamon Pulls It All Together

Bridging A Gap Between Networks & Network Performance

by John Brandon

• • •

MONITORING NETWORK performance is not only a crucial step in expanding a business, but it's also a sign that a company is entering a new phase of compliance. With expansion, though, comes complexity. For companies with fewer than 1,000 employees, there's a tendency to add network layers without a well-defined plan that addresses some common issues such as how to monitor disparate servers and how to support the expanding infrastructure with a limited, overworked IT staff.

One company that is focused on this critical issue is Gigamon (www.gigamon.com), a startup that has been in business since 2003 but released its first product in the summer of 2005. The GigaVUE-MP is a network appliance that allows companies to share SPAN (switched port analyzer) ports between several network monitoring appliances, such as those from Network Instruments (www.networkinstruments.com) and Network Physics (www.networkphysics.com). It addresses the fact that parallel networks are often combined into virtual channels, that load balancers break up these virtual streams into different physical paths, and that disparate business units in larger companies often deploy monitoring appliances for their own specific purposes, with

no link that understands all of the traffic and can aggregate it for better monitoring.

"A company might have servers for online commerce site, and traffic comes from buying music downloads while another half is from an online store, while another server might be for email or chat," says Denny Miu, Gigamon's CEO and founder. "We provide a way to aggregate all of this traffic that's divided into different portions on several different appliances from many different providers. Our product is the magic box that understands all of these multiple inputs and outputs and can map the traffic that is relayed and subdivided on parallel networks for more accurate monitoring data."

Main Advantage

One key advantage to the Gigamon appliance for midsized businesses, especially those planning for future network growth, is the cost savings that comes when they add the Gigamon GigaVUE-MP to link monitoring equipment before a mass deployment. Of course, Gigamon also works with companies that have gone the other route—adding several monitoring appliances to their infrastructure to meet compliance issues without linking them first for more accurate data.



Bring New Life to Your Tools ©

"Our product is unique in that it is a gateway between parallel networks, so we typically work in large company production environments where they might have one production network for development and another network for business," says Miu. "These are companies with annual revenues of \$200 [million] to \$300 [million] and 10,000 employees, but we also work with large SMB customers with complex networks and infrastructure."

"A lot of our opportunity is with those who have retrofitted, complicated networks, companies who have purchased a lot of monitoring tools and then found they could not deploy them correctly. We come in, and the first thing we do is put a box in the middle, without interrupting any of the monitoring. We talk to a lot of companies who are in the early planning stages, too. The nice thing about our product is that it is transparent to the monitoring, as it's a pass-through technology. We work closely with Network Instruments and Network Physics to make sure there is no disruption in monitoring;

there's a benefit to the customer because they can deploy more monitoring devices, and of course that's a business benefit to the monitoring companies, as well."

The main impetus for the new network complexity and monitoring appliance deployments, says Miu, is new compliance after 9/11 and the Enron scandal. Miu called the new regulations a result of a "perfect storm" of decentralization in large companies and increased world terrorism, which has caused most companies to decentralize networks and move data centers offsite.

"Companies have been inundated with new compliance requirements in the past five years," he says. "These requirements put a lot of restrictions on how you conduct your business. It has really changed how IT

operates and has affected many areas including security and finance. In a business sense, there now has to be another layer of auditing; companies need two accounting firms, one to do the day-to-day accounting and one for auditing. Network managers face the same issue. There are monitoring appliances for many purposes, such as security or application monitoring, and there might be one team in the enterprise who manages the network and another team that monitors the network."

Miu says firms used to view monitoring and intrusion detection as one networking challenge. Recently, there has been a split into two fields: IPS (intrusion prevention system) and IDS (intrusion detection system). The detection field monitors real aggregated traffic not altered by IPS appliances.

"In the past few years, some companies have thought they could monitor performance and block intrusions at the same time, but we now know that there is typically one appliance designed for monitoring and one for security. Monitoring is like the auditor, an independent third party that can discover network anomalies and expose them."

Looking Down The Road

The "check and balance" mentality has returned to IT, says Miu, and that has positioned Gigamon for future growth. The company outsources manufacturing and account management but focuses on hardware development and testing and on technical support for its product. Miu says Gigamon is in a good position to keep innovating in the network monitoring space and keep working with the network monitoring companies as they continue to innovate and grow.

"Today, there are just too many switches, too many ports, too many networks. There are too [many] multiple links between load balancers, routers, and network monitoring appliances. Our product is the aggregator and the bridge to understanding that complexity." □

PROCESSOR.COM

Search Our Complete Editorial Archive Online

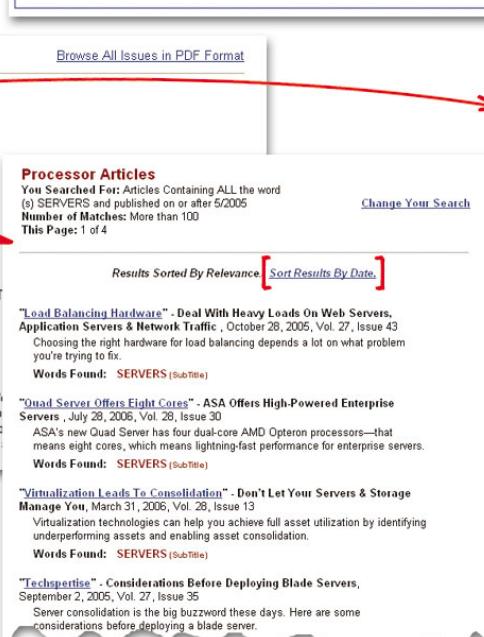
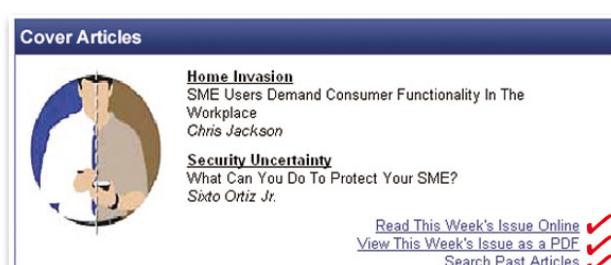


On the Processor.com home page, you'll see a Cover Articles section near the middle of the page. In the box, you'll see links to the two articles that appeared on the cover of the most recent print issue, along with links to see the full issue either in an online table of contents format or as a PDF.

If you know the topic you need more information on, the most helpful area is our Article Search page, which you can access by clicking the **Search Past Articles** link from the Cover Articles section on the Processor.com home page.

Once the Article Search page appears, enter a keyword or phrase in the text entry box. Choose whether you want the resulting articles to include all, any, or an exact match of your keywords. Click Search. You'll see a list of results sorted by relevance. To see the most recent articles first, click the link to **Sort Results By Date**.

Date. Articles are listed showing the article title, issue date, and a brief synopsis. When you find an article of interest, simply click the article title link. If your search results in too many matches, or if you don't find the information you're looking for,

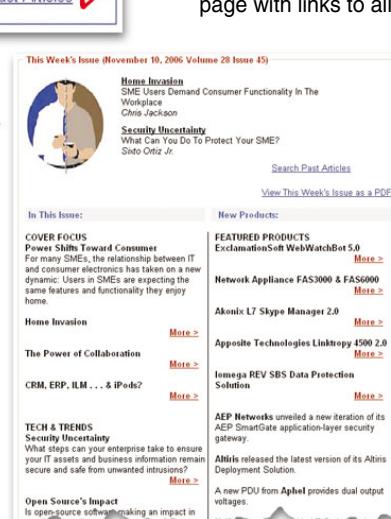


When you want to get up to date with what's happening in a certain area or need to research a particular product or technology, be sure to search through our complete archive of articles online at www.Processor.com.

try searching again using different keywords. Searches on our site work best when you can enter a small number of specific keywords.

The Article Search page also includes links to This Week's Issue, Browse All Issues, and Browse All Articles. Click the **This Week's Issue** link to see an online table of contents page with links to all the articles in the most recent issue.

Back at the Article Search page, you can click **Browse All Issues** to see a list of all the issues we've printed with editorial, in chronological order. This is handy when you know what issue the article appeared in. The **Browse All Articles** link lets you search for articles that appeared during a specific time frame. There are two options: Show All Articles From The Latest Issue or Search For Articles Between Dates. Select the option you want and, if necessary, enter a date range. Click Search.



We're constantly striving to improve our tools. If you have any suggestions for improving our Web site or can't find the information you're looking for, send an email to editor@processor.com or give us a call at (800) 544-1264.

RACKMOUNT SOLUTIONS, LTD

where customer service matters

(866) 207-6631

Mention This Ad For A Free Cagenut Removal Tool!

Long Wallmount Rack

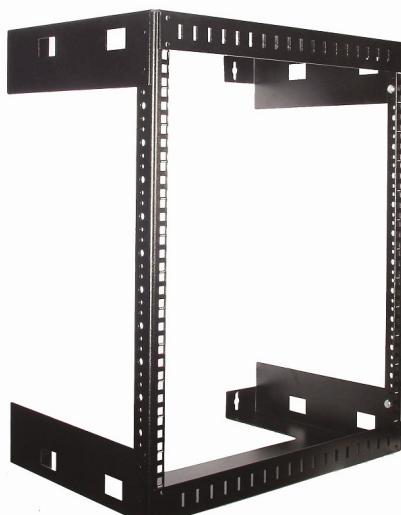


Universal Rack Rails
Takes Servers Up To 31" Deep
Available in 4U, 6U & 8U

- Rack allows mounting of equipment in a vertical "knobs up" fashion (**visualize a pendaflex hanging folder**)
- Equipment mounts to backpan for even weight distribution
- Hinged top cover allows user access to controls
- Hinged body allows installer access to connections
- Top cover and body keyed separately
- Rack backpan includes venting and optional fan mounting with grills
- **GSA Schedule #GS-35F-0208R**

www.Processor.com/RackmountSolutions19

Wallmount Relay Rack



- Self-squaring guarantees easy assembly
- Two depths: 13" and 19"
- Five heights: 8U, 12U, 15U, 18U, and 30U
- No more stripped threaded holes
- Ultimate versatility with universal rack rail. Use 10-32, 12-24 or m6 screws.

See our IT70 GSA Schedule #GS-35F-0208R

www.Processor.com/RackmountSolutions18

NEBS Server Cabinet



36"D - Certified to Seismic Zone 4

Based on the standard, patented frame design of our RS, RSP, and FRS server rack series, this NEBS-compliant configuration has been tested and certified to meet Telcordia (Bellcore) GR-63-CORE requirements for ZONE 4 seismic earthquake environments.

GSA Schedule #GS-35F-0208R

www.Processor.com/RackmountSolutions24

Shockrack Shipping Case



20", 24" & 30" Depth

Million Mile Warranty: Every SKB hardshell case is unconditionally guaranteed forever. That means if you break it, we will repair it or replace it at no cost to you. SKB cases have been on the road since 1977 and have spent a good deal of time flying equipment for military combat operations. These are tough cases built for a lifetime of service.

GSA Schedule #GS-35F-0208R

www.Processor.com/RackmountSolutions14

Tabletop / Portable Server Rack



32" (Usable Depth) - Perfect On or Under Desk

- 3U, 6U, 9U, 12U and 15U Heights
- Includes 4.5" fan, 25 pcs M6 hardware/cage nuts & levelers
- Black, locking plexi front door and vented rear door
- Supports Dell/IBM/HP/Compaq, etc. (univ. mounting rails)

See our IT70 GSA Schedule #GS-35F-0208R

www.Processor.com/RackmountSolutions2

Rackmount TFT / LCD Drawer



Superb Quality • Unparalleled Versatility
More choices than you ever dreamed of!

- 13", 15", 17", 19"
- Touch pad, track ball, real mouse
- With or without 4-, 8- or 16-port KVM
- 1U or 2U for independent monitor/keyboard use

www.Processor.com/RackmountSolutions

GSA #GS-35F-0208R

Phone: 866-207-6631

www.RackmountSolutions.net